



AGENDA

December 18, 2018

7:30 p.m.

		Packet Page #
I.	Call to Order	
II.	Approval of Minutes:	2
	October 23, 2018 Meeting	
	November 27, 2018 Meeting	4
III.	Approval of Payments:	6
IV.	Draft 2019 Operating and Capital Budgets – Presentation, Discussion	16
V.	Authority Administration Reports	
	A. Clean Water, Inc. Monthly Report	40
	B. ARRO Consulting Monthly Report	42
	C. Authority Administrator's Report	66
	i. Update - Bond Issuance	
	D. Public Works Department Report	67
VI.	Open Session	
VII.	Next Meeting Dates: January 15, 2019 7:30 PM	
VIII.	Adjournment	



MEETING MINUTES

October 23, 2018

7:30 PM

DRAFT

In Attendance: W. Quinn, Chairman, D. Carlson, Vice Chairman, H. Harper, Member, R. Watts, Member, L. Schack, Member, G Matthew Brown, P.E., DEE, Authority Administrator, Katie Cirone P.E., ARRO Consulting, Inc.

Call to Order

W. Quinn called the meeting to order at 7:30 PM.

Approval of Minutes

D. Carlson moved to approve the draft minutes of the September 25, 2018 meeting as submitted. H. Harper seconded. It was so moved.

Approval of Payments

Following questions and a brief discussion, a motion was made by D. Carlson to approve the payments. B. Watts seconded. It was so moved. Following a brief discussion, D. Carlson made a motion to accept in good faith the Balance Sheet and Revenue and Expenses Reports as prepared by the Township Treasurer. L. Schack seconded the motion. It was so moved.

Authority Administration Reports

M. Brown noted that all treatment facilities were operating well and within their permit requirements. He noted the four reports and asked if there were any questions related to them. Several questions and a brief discussion followed.

M. Brown noted a customer, Mrs. Capell, had overpaid her bill and was requesting a cash refund rather than a credit toward future bills. B. Watts moved, seconded by D. Carlson to provide a refund to Mrs. Capell. It was so moved.

M. Brown discussed the upcoming bond issue noting the Township would be issuing approximately an \$11.2M General Obligation issue of which \$5.45M would be self-liquidating to include sewerage projects. He reviewed the projects and noted the bond underwriter would be present at the November meeting to review the bond issue with the Authority.

A discussion then ensued over modifications to the agreement between the Township and Authority regarding operation of the sewer system. M. Brown requested that if the Authority had any questions or comments that they be directed toward the Solicitor or him.

H. Harper made a motion to approve the reports of the Authority Administrator. B. Watts seconded. It was so moved.

Lakeridge Sludge Tank Relocation – Bid Results

K. Cirone presented the bid results for the project and recommended the award of the contracts to Blooming Glen Contractors, Inc. for the General Construction Contract with a bid price of \$520,500 and Eastern Environmental Contractors, Inc. for the Electrical Construction with a bid price of \$59,350. B. Watts moved to award the contracts as recommended. D. Carlson seconded. It was so moved.

Open Session

Diane and Ray Legnini of 12 Surrey Drive (Milford Farms development) were present to ask about when public sewer would be coming to the development. M. Brown noted that seweraging the development was incorporated in the bond issue the Authority had discussed earlier in the meeting. He estimated the sewer would be constructed in late 2019 or early 2020. They also asked about water and gas service. D. Carlson suggested that since the Authority was not involved in either utility that they contact the Township Manager and/or attend the Board of Supervisors meeting to discuss.

Next Meeting Date: November 27, 2018 - 7:30 PM

R. Watts noted the date and time of the next meeting of the Authority.

Adjournment

There being no further business to be brought before the Authority, H. Harper moved, seconded by D. Carlson to adjourn the meeting at 8:25 PM.

Respectfully submitted,

G. Matthew Brown, P.E., DEE
Authority Administrator



MEETING MINUTES
November 27, 2018

7:30 PM
DRAFT

In Attendance: W. Quinn, Chairman, D. Carlson, Vice Chairman, H. Harper, Member, G. Matthew Brown, P.E., DEE, Authority Administrator, Katie Cirone, P.E., ARRO Consulting, Inc.

Call to Order

W. Quinn called the meeting to order at 7:32 PM.

Approval of Minutes

Draft minutes of the October 23, 2018 meeting were not presented. Approval was deferred until the December meeting.

Approval of Payments

Following questions and a brief discussion, a motion was made by D. Carlson to approve the payments. H. Harper seconded. It was so moved. Following a brief discussion, D. Carlson made a motion to accept in good faith the Balance Sheet and Revenue and Expenses Reports as prepared by the Township Treasurer. H. Harper seconded the motion. It was so moved.

Introduction of RBC Bond Issuance

Dan O'Brien and Allie Mackey from RBC offered a presentation on the upcoming bond issue. They reviewed the Authority portion of the issue and noted the amortization schedule and interest rate anticipated. They answered questions of the Authority and reviewed the Township portion of the issue also. M. Brown offered comment on the 2018 rate increase and the current surplus illustrated in the budget.

Authority Administration Reports

M. Brown noted that all treatment facilities were operating well and within their permit requirements. He noted the four reports and asked if there were any questions related to them. Several questions and a brief discussion followed.

D. Carlson made a motion to approve the reports of the Authority Administrator. H. Harper seconded. It was so moved.

Open Session

No public was in attendance.

Next Meeting Date: December 18, 2018 - 7:30 PM

R. Watts noted the date and time of the next meeting of the Authority.

Adjournment

There being no further business to be brought before the Authority, H. Harper moved, seconded by D. Carlson to adjourn the meeting at 8:52 PM.

Respectfully submitted,

G. Matthew Brown, P.E., DEE
Authority Administrator

December 14, 2018
03:04 PM

Upper Uwchlan Township
Check Register By Check Id

Page No: 1

Range of Checking Accts: MA MERIDIAN to MA MERIDIAN Range of Check Ids: 1725 to 1746
Report Type: All Checks Report Format: Super Condensed Check Type: Computer: Y Manual: Y Dir Deposit: Y

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Check #	Check Date	Vendor	Amount Paid	Reconciled/Void Ref Num
1725	12/18/18	ALSGROUP ALS GROUP USA, CORP	471.90	1914
1726	12/18/18	AQUAP010 AQUA PA	710.23	1914
1727	12/18/18	ARROC010 ARRO CONSULTING, INC.	23,608.76	1914
1728	12/18/18	BUCKL010 BUCKLEY, BRION, MCGUIRE, MORRI	1,340.10	1914
1729	12/18/18	CHRISFRA FRANTZ, CHRISTOPHER	357.00	1914
1730	12/18/18	CLEANWAT CLEAN WATER, INC.	6,335.00	1914
1731	12/18/18	COUNT010 COUNTRY ESTATE FENCE, INC.	90.50	1914
1732	12/18/18	DECKM010 DECKMAN ELECTRIC, INC.	3,978.76	1914
1733	12/18/18	DYNAT010 DYNA TECH INDUSTRIES LTD	3,474.00	1914
1734	12/18/18	INKS0010 INK'S DISPOSAL SERVICE, INC.	575.00	1914
1735	12/18/18	KEYSTENG KEYSTONE ENGINEERING GROUP, IN	980.00	1914
1736	12/18/18	LUDWI060 LUDWIG'S CORNER SUPPLY CO.	139.99	1914
1737	12/18/18	MCGOV020 MCGOVERN ENVIRONMENTAL, LLC	3,327.40	1914
1738	12/18/18	MJREIDER M. J. REIDER ASSOCIATES, INC.	819.00	1914
1739	12/18/18	MSSER040 M & S SERVICE COMPANY, INC.	750.00	1914
1740	12/18/18	PEC00010 PECO	19,304.00	1914
1741	12/18/18	PENNS080 PENNSYLVANIA ONE CALL	90.16	1914
1742	12/18/18	PIPEL020 PIPE LINE PLASTICS, INC	27.86	1914
1743	12/18/18	TREVD010 TREV DAN	78.00	1914
1744	12/18/18	VERIZFIO VERIZON	1,102.90	1914
1745	12/18/18	VERIZFIO VERIZON	132.40	1914
1746	12/18/18	WGMALDEN W. G. MALDEN	1,814.14	1914

Report Totals	<u>Paid</u>	<u>Void</u>	<u>Amount Paid</u>	<u>Amount Void</u>
Checks:	22	0	69,507.10	0.00
Direct Deposit:	0	0	0.00	0.00
Total:	<u>22</u>	<u>0</u>	<u>69,507.10</u>	<u>0.00</u>

December 14, 2018
02:46 PM

Upper Uwchlan Township
Check Payment Batch Verification Listing

Page No: 1

Batch Id: LHAINES Batch Type: C Batch Date: 12/18/18 Checking Account: MA MERIDIAN G/L Credit: Expenditure G/L Credit
Generate Direct Deposit: N

Check No.	Check Date	Vendor #	Name	Payment Amt	Street 1 of Address to be printed on Check	Charge Account Description	Account Type	Status	Seq	Acct
PO #	Enc Date	Item Description								
	12/18/18	ALSGROUP	ALS GROUP USA, CORP		P.O. BOX 975444					
18-01783	12/18/18	1	st. elizabeth	471.90	06-420-000-030	Testing	Expenditure	Aprv	1	1
				471.90						
	12/18/18	AQUAP010	AQUA PA		PO BOX 1229					
18-01785	12/18/18	1	119 prescott drive	17.20	06-409-000-037	Water	Expenditure	Aprv	11	1
18-01785	12/18/18	2	100 milford road	17.20	06-409-000-037	Water	Expenditure	Aprv	12	1
18-01785	12/18/18	3	100 prescott drive	17.20	06-409-000-037	Water	Expenditure	Aprv	13	1
18-01785	12/18/18	4	meadow creek lane	17.20	06-409-000-037	Water	Expenditure	Aprv	14	1
18-01785	12/18/18	5	308 flagstone road	17.20	06-409-000-037	Water	Expenditure	Aprv	15	1
18-01785	12/18/18	6	1 prospect hill blvd	50.20	06-409-000-037	Water	Expenditure	Aprv	16	1
18-01785	12/18/18	7	528 walter court	17.20	06-409-000-037	Water	Expenditure	Aprv	17	1
18-01785	12/18/18	8	325 fellowship road	350.00	06-409-000-037	Water	Expenditure	Aprv	18	1
18-01785	12/18/18	9	658 collingwood terr	50.20	06-409-000-037	Water	Expenditure	Aprv	19	1
18-01785	12/18/18	10	241 fellowship road	19.35	06-409-000-037	Water	Expenditure	Aprv	20	1
18-01785	12/18/18	11	29 yarmouth lane	17.20	06-409-000-037	Water	Expenditure	Aprv	21	1
18-01785	12/18/18	12	425 hemlock lane	50.20	06-409-000-037	Water	Expenditure	Aprv	22	1
18-01785	12/18/18	13	2680 primrose court	17.20	06-409-000-037	Water	Expenditure	Aprv	23	1
18-01785	12/18/18	14	381 lcr	17.20	06-409-000-037	Water	Expenditure	Aprv	24	1
18-01785	12/18/18	15	111 dorothy lane	17.20	06-409-000-037	Water	Expenditure	Aprv	25	1
18-01785	12/18/18	16	1120 sunderland ave	18.28	06-409-000-037	Water	Expenditure	Aprv	26	1
				710.23						
	12/18/18	ARROC010	ARRO CONSULTING, INC.		108 WEST AIRPORT ROAD					
18-01784	12/18/18	1	project 17000.00 consulting	2,702.75	06-408-000-000	Engineering Fees	Expenditure	Aprv	2	1
18-01784	12/18/18	2	project 9310.32 ww admin serv	9,941.60	06-408-000-000	Engineering Fees	Expenditure	Aprv	3	1
18-01784	12/18/18	3	project 10270.41 reserve fence	708.91	06-408-000-000	Engineering Fees	Expenditure	Aprv	4	1
18-01784	12/18/18	4	project 10270.53 lakeridge	1,758.25	06-408-000-000	Engineering Fees	Expenditure	Aprv	5	1

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Upper Uwchlan Township
Check Payment Batch Verification Listing

Page No: 2

Check No.	Check Date	Vendor # Name	Payment Amt	Street 1 of Address to be printed on Check	Account Type	Status	Seq	Acct
PO #	Enc Date	Item Description		Charge Account Description				
18-01784	12/18/18	5 project 10270.56 field mapping	2,576.00	06-408-000-000 Engineering Fees	Expenditure	Aprv	6	1
18-01784	12/18/18	6 project 10270.57 tank rehab	3,434.00	06-408-000-000 Engineering Fees	Expenditure	Aprv	7	1
18-01784	12/18/18	7 project 10270.60 resolution	1,014.25	06-408-000-000 Engineering Fees	Expenditure	Aprv	8	1
18-01784	12/18/18	8 project 10270.62 greenridge	539.00	06-408-000-000 Engineering Fees	Expenditure	Aprv	9	1
18-01784	12/18/18	9 project 10270.64 milford farms	934.00	06-408-000-000 Engineering Fees	Expenditure	Aprv	10	1
			23,608.76					
	12/18/18	BUCKL010 BUCKLEY, BRION, MCGUIRE, MORRI		118 W. MARKET STREET				
18-01786	12/18/18	1 sewer collections	1,340.10	06-404-000-000 Legal Fees	Expenditure	Aprv	27	1
			1,340.10					
	12/18/18	CHRISFRA FRANTZ, CHRISTOPHER		PO BOX 557				
18-01791	12/18/18	1 ma - general representation	357.00	06-404-000-000 Legal Fees	Expenditure	Aprv	35	1
			357.00					
	12/18/18	CLEANWAT CLEAN WATER, INC.		170 DALLAS STREET				
18-01788	12/18/18	1 ma - monthly operations	6,335.00	06-420-000-045 Contracted Services	Expenditure	Aprv	29	1
			6,335.00					
	12/18/18	COUNT010 COUNTRY ESTATE FENCE, INC.		35 SENN DRIVE				
18-01787	12/18/18	1 split rail - spray fields	90.50	06-420-000-025 Maintenance & Repair	Expenditure	Aprv	28	1
			90.50					
	12/18/18	DECKM010 DECKMAN ELECTRIC, INC.		49 W. FRONT STREET				
18-01789	12/18/18	1 ma - new century motor	584.09	06-420-000-025 Maintenance & Repair	Expenditure	Aprv	30	1
18-01789	12/18/18	2 ma - new flygt pump	3,394.67	06-420-000-025 Maintenance & Repair	Expenditure	Aprv	31	1
			3,978.76					
	12/18/18	DYNAT010 DYNATECH INDUSTRIES LTD		120 N 25TH STREET				
18-01790	12/18/18	1 twp bldg - annual service	345.00	06-420-000-045 Contracted Services	Expenditure	Aprv	32	1
18-01790	12/18/18	2 reserve 1 - service	1,555.00	06-420-000-045 Contracted Services	Expenditure	Aprv	33	1
18-01790	12/18/18	3 reserve 2 - service	1,574.00	06-420-000-045 Contracted Services	Expenditure	Aprv	34	1
			3,474.00					
	12/18/18	INKS0010 INK'S DISPOSAL SERVICE, INC.		564 NORTH MANOR ROAD				
18-01792	12/18/18	1 eaglepointe,saybrook,lakeridge	575.00	06-420-000-025 Maintenance & Repair	Expenditure	Aprv	36	1
			575.00					

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Upper Uwchlan Township
Check Payment Batch Verification Listing

Page No: 3

Check No.	Check Date	Vendor #	Name	Payment Amt	Street 1 of Address to be printed on Check	Charge Account	Account Type	Status	Seq	Acct Description
12/18/18	12/18/18	KEYSTENG	KEYSTONE ENGINEERING GROUP, IN	980.00	590 E. LANCASTER AVE	06-408-000-000	Expenditure	Aprv	37	1
18-01793	12/18/18	1 ma - scada system t & m		<u>980.00</u>	Engineering Fees					
12/18/18	12/18/18	LUDWI060	LUDWIG'S CORNER SUPPLY CO.	139.99	1230 POTTSTOWN PIKE	06-420-000-020	Expenditure	Aprv	38	1
18-01794	12/18/18	1 ma - 5 gal	extreme drylok	<u>139.99</u>	Supplies					
12/18/18	12/18/18	MCGOV020	MCGOVERN ENVIRONMENTAL, LLC	264.96	920 SOUTH BOLMAR STREET	06-420-000-031	Expenditure	Aprv	39	1
18-01795	12/18/18	1 lakeridge		404.69	Pump & Haul	06-420-000-031	Expenditure	Aprv	40	1
18-01795	12/18/18	2 eaglepointe		1,580.29	Pump & Haul	06-420-000-031	Expenditure	Aprv	41	1
18-01795	12/18/18	3 eaglepointe		77.63	Pump & Haul	06-420-000-031	Expenditure	Aprv	42	1
18-01795	12/18/18	4 route 100		404.69	Pump & Haul	06-420-000-031	Expenditure	Aprv	43	1
18-01795	12/18/18	5 eaglepointe		77.63	Pump & Haul	06-420-000-031	Expenditure	Aprv	44	1
18-01795	12/18/18	6 route 100		219.94	Pump & Haul	06-420-000-031	Expenditure	Aprv	45	1
18-01795	12/18/18	7 eaglepointe		77.63	Pump & Haul	06-420-000-031	Expenditure	Aprv	46	1
18-01795	12/18/18	8 route 100		219.94	Pump & Haul	06-420-000-031	Expenditure	Aprv	47	1
18-01795	12/18/18	9 eaglepointe		<u>3,327.40</u>	Pump & Haul					
12/18/18	12/18/18	MJREIDER	M. J. REIDER ASSOCIATES, INC.	108.50	107 ANGELICA STREET	06-420-000-030	Expenditure	Aprv	48	1
18-01796	12/18/18	1 saybrooke		122.50	Testing	06-420-000-030	Expenditure	Aprv	49	1
18-01796	12/18/18	2 marsh harbor		108.50	Testing	06-420-000-030	Expenditure	Aprv	50	1
18-01796	12/18/18	3 greenridge		42.00	Testing	06-420-000-030	Expenditure	Aprv	51	1
18-01796	12/18/18	4 saybrooke		56.00	Testing	06-420-000-030	Expenditure	Aprv	52	1
18-01796	12/18/18	5 reserve,eagle hunt,byers,ewing		122.50	Testing	06-420-000-030	Expenditure	Aprv	53	1
18-01796	12/18/18	6 lakeridge		150.50	Testing	06-420-000-030	Expenditure	Aprv	54	1
18-01796	12/18/18	7 eaglepointe		108.50	Testing	06-420-000-030	Expenditure	Aprv	55	1
18-01796	12/18/18	8 rt 100 wwtw		<u>819.00</u>	Testing					
12/18/18	12/18/18	MSSER040	M & S SERVICE COMPANY, INC.	1220 VALLEY FORGE ROAD #16						

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Upper Uwchlan Township
Check Payment Batch Verification Listing

Page No: 4

Check No.	Check Date	Vendor # Name	Payment Amt	Street 1 of Address to be printed on Check	Account Type	Status	Seq	Acct
PO #	Enc Date	Item Description		Charge Account Description				
18-01797	12/18/18	1 ewing tract ps - phone repair	750.00	06-420-000-025 Maintenance & Repair	Expenditure	Aprv	56	1
			750.00					
	12/18/18	PEC00010 PECO		PO BOX 37629				
18-01798	12/18/18	1 304 fellowship road	155.00	06-409-000-036 Electric	Expenditure	Aprv	57	1
18-01798	12/18/18	2 2500 eagle farms road	760.00	06-409-000-036 Electric	Expenditure	Aprv	58	1
18-01798	12/18/18	3 seabury lane	35.00	06-409-000-036 Electric	Expenditure	Aprv	59	1
18-01798	12/18/18	4 primrose court	830.00	06-409-000-036 Electric	Expenditure	Aprv	60	1
18-01798	12/18/18	5 100a prescott drive	275.00	06-409-000-036 Electric	Expenditure	Aprv	61	1
18-01798	12/18/18	6 meadow creek lane	35.00	06-409-000-036 Electric	Expenditure	Aprv	62	1
18-01798	12/18/18	7 301 pottstown pike	1,140.00	06-409-000-036 Electric	Expenditure	Aprv	63	1
18-01798	12/18/18	8 kristines/milford	160.00	06-409-000-036 Electric	Expenditure	Aprv	64	1
18-01798	12/18/18	9 711 dorian road	105.00	06-409-000-036 Electric	Expenditure	Aprv	65	1
18-01798	12/18/18	10 111 dorothy lane	75.00	06-409-000-036 Electric	Expenditure	Aprv	66	1
18-01798	12/18/18	11 dorlan drive	1,260.00	06-409-000-036 Electric	Expenditure	Aprv	67	1
18-01798	12/18/18	12 381 lcr	195.00	06-409-000-036 Electric	Expenditure	Aprv	68	1
18-01798	12/18/18	13 milford road	30.00	06-409-000-036 Electric	Expenditure	Aprv	69	1
18-01798	12/18/18	14 st andrews road	41.00	06-409-000-036 Electric	Expenditure	Aprv	70	1
18-01798	12/18/18	15 park road	1,290.00	06-409-000-036 Electric	Expenditure	Aprv	71	1
18-01798	12/18/18	16 55 pottstown pike	530.00	06-409-000-036 Electric	Expenditure	Aprv	72	1
18-01798	12/18/18	17 yarmouth lane	335.00	06-409-000-036 Electric	Expenditure	Aprv	73	1
18-01798	12/18/18	18 sunderland ave	1,875.00	06-409-000-036 Electric	Expenditure	Aprv	74	1
18-01798	12/18/18	19 kiloran wynd	260.00	06-409-000-036 Electric	Expenditure	Aprv	75	1
18-01798	12/18/18	20 flagstone road	780.00	06-409-000-036 Electric	Expenditure	Aprv	76	1
18-01798	12/18/18	21 yarmouth lane	38.00	06-409-000-036 Electric	Expenditure	Aprv	77	1
18-01798	12/18/18	22 140 pottstown pike	180.00	06-409-000-036 Electric	Expenditure	Aprv	78	1
18-01798	12/18/18	23 275 fellowship road	7,300.00	06-409-000-036 Electric	Expenditure	Aprv	79	1
18-01798	12/18/18	24 heron hill drive	85.00	06-409-000-036	Expenditure	Aprv	80	1

December 14, 2018
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Upper Uwchlan Township
Check Payment Batch Verification Listing

Page No: 5

Check No.	Check Date	Vendor #	Name	Payment Amt	Street 1 of Address to be printed on Check	Charge Account Description	Account Type	Status	Seq	Acct
18-01798	12/18/18	25	indian springs drive	65.00	Electric	06-409-000-036	Expenditure	Aprv	81	1
18-01798	12/18/18	26	yarmouth lane	60.00	Electric	06-409-000-036	Expenditure	Aprv	82	1
18-01798	12/18/18	27	cassandra lane	210.00	Electric	06-409-000-036	Expenditure	Aprv	83	1
18-01798	12/18/18	28	fellowship road	1,200.00	Electric	06-409-000-036	Expenditure	Aprv	84	1
				19,304.00	Electric					
12/18/18	PENNS080	PENNSYLVANIA ONE CALL			P.O. BOX 640407					
18-01800	12/18/18	1	monthly activity fees	90.16	06-420-000-329	PA One Call	Expenditure	Aprv	86	1
				90.16						
12/18/18	PIPEL020	PIPE LINE PLASTICS, INC			901 CAMARO RUN DRIVE					
18-01799	12/18/18	1	ma - pvc pipe	27.86	06-420-000-020	Supplies	Expenditure	Aprv	85	1
				27.86						
12/18/18	TREVD010	TREVDAN			PO BOX 28					
18-01801	12/18/18	1	ma - bolts	78.00	06-420-000-020	Supplies	Expenditure	Aprv	87	1
				78.00						
12/18/18	VERIZFIO	VERIZON			PO BOX 15124					
18-01802	12/18/18	1	telephone	1,102.90	06-409-000-032	Telephone	Expenditure	Aprv	88	1
				1,102.90						
12/18/18	VERIZFIO	VERIZON			PO BOX 15124					
18-01803	12/18/18	1	internet	132.40	06-409-000-032	Telephone	Expenditure	Aprv	89	1
				132.40						
12/18/18	WGMALDEN	W. G. MALDEN			P.O. BOX 196					
18-01804	12/18/18	1	calibrate metering equipment	1,814.14	06-420-000-045	Contracted Services	Expenditure	Aprv	90	1
				1,814.14						
Checks:	Count	Line Items		Amount						
	22	90		69,507.10						

There are NO errors or warnings in this listing.

Upper Uwchlan Township Municipal Authority
Balance Sheet
As of November 30, 2018

ASSETS

<u>Cash</u>	
06-100-000-010	General Checking - Fulton Bank
06-100-000-015	General Checking - Meridian Bank
06-100-000-020	General Checking - WIPP
06-106-000-002	Tap-in Fee Account
	Total Cash
	1,146,017.92
<u>PSDLAF Investments:</u>	
06-109-000-003	CD Program
06-109-000-004	Full Flex
	Total Investments
	180.01
<u>Accounts Receivable</u>	
06-145-000-001	Usage Fees Receivable
06-145-000-002	Capital Assessment Receivable
06-147-000-000	Misc Accounts Receivable
	Total Accounts Receivable
	275,243.20
<u>Other Current Assets</u>	
06-130-000-001	Due from MA Capital Fund
06-130-000-002	Due from UUT General Fund
06-130-000-003	Due from UUT Capital Fund
06-130-000-004	Due from Solid Waste Fund
06-130-000-005	Due from Stormwater Fund
06-130-000-006	Due from Sewer Fund
06-152-000-000	Undeposited Funds
06-155-000-000	Pre-Paid Expenses
06-155-000-010	Pre-Paid Attorney Fees
	Total Other Current Assets
	235,003.17
<u>Fixed Assets</u>	
06-162-000-001	Fixed Assets
06-162-000-050	Accumulated Depreciation
06-163-000-100	Phase II Construction Project (CIP)
	Total Fixed Assets
	1,044,892.49
<u>Other Long Term Assets</u>	
06-162-000-002	Excess Treatment Capacity
	Total Other Long Term Assets
	1,649,293.24
	Total Assets
	\$ 4,350,630.03

Upper Uwchlan Township Municipal Authority
Balance Sheet
As of November 30, 2018

LIABILITIES AND FUND BALANCE

	<u>Current Liabilities</u>	
06-200-000-020	Accounts Payable	-
06-230-000-010	Due to UUT General Fund	39,036.50
06-230-000-020	Due to UUT Capital Fund	-
06-230-000-021	Due to MA Capital Fund	-
06-230-000-030	Due to Solid Waste Fund	11,742.24
06-230-000-040	Due to Water Resource Protection Fund	-
06-230-000-050	Due to Sewer Fund	-
06-230-000-060	Due to Developer's Escrow Fund	200.00
06-240-000-000	Accrued Expenses	23,608.76
06-241-000-100	Retainage on Phase II Construction Project	-
06-245-000-000	Due to Customers	275.00
	Total Current Liabilities	74,862.50
	<u>Equity</u>	
06-272-000-001	Opening Bal Equity	753,500.35
06-272-000-002	Retained Earnings	2,967,663.79
	Current Period Net Income (Loss)	554,603.39
	Total Equity	4,275,767.53
	Total Fund Balance	4,275,767.53
	Total Liabilities & Fund Balance	\$ 4,350,630.03

Upper Uwchlan Township Municipal Authority
Statement of Revenues and Expenditures

For the Period Ended November 30, 2018

	Actual 2018 YTD	Budget 2018	% of Budget	Actual 2017 (Audited)	Budget 2017
REVENUES					
06-340-000-000	Interest Income	13,608.66	7,300.00	186.4%	6,500.00
06-365-000-000	Usage Fees Residential	2,053,863.54	2,027,640.00	101.3%	1,757,532.00
06-365-000-001	Usage Fees Commercial	81,460.45	101,014.00	80.6%	101,014.00
06-365-000-010	Tapping Fees	31,255.74	2,176,350.00	1.4%	331,063.00
06-370-000-000	Misc revenue	208.16	1,000.00	20.8%	1,000.00
06-395-000-000	Refund of Prior Year Expenditures	1,200.00	-	#DIV/0!	-
06-395-000-100	Transfer from Sewer Fund	-	-	#DIV/0!	385,000.00
	TOTAL REVENUES	\$ 2,181,596.55	\$ 4,313,304.00	50.6%	\$ 2,745,322.00
		\$ 2,684,744.00			
EXPENDITURES					
<i>General:</i>					
06-400-000-001	Administration	191,764.98	234,219.00	81.9%	212,464.00
06-400-000-002	Authority Administrator	112,137.97	120,000.00	93.4%	123,249.00
06-400-000-003	Professional Fees	7,532.74	12,000.00	62.8%	3,001.00
06-400-000-200	Admin Supplies	-	1,000.00	0.0%	10.00
06-400-000-341	Advertising	2,715.76	1,000.00	271.6%	1,000.00
06-400-000-352	Insurance - Liability	4,660.52	2,337.00	199.4%	8,133.00
06-400-000-355	Bank Fees	143.44	650.00	22.1%	530.00
06-402-000-450	Audit Fees	5,300.00	5,200.00	101.9%	5,050.00
06-404-000-000	Legal Fees	13,735.74	20,800.00	66.0%	20,000.00
06-406-000-100	Utility Billing Costs	8,078.94	18,000.00	0.0%	18,530.00
06-408-000-000	Engineering Fees	114,851.18	150,000.00	76.6%	140,000.00
06-408-000-100	Reimbursable Engineering Fees	-	-	#DIV/0!	-
		460,921.27	565,206.00	81.5%	557,033.00
					529,667.00
<i>Building Expenses:</i>					
06-409-000-031	Lawn Care	1,194.24	7,500.00	15.9%	11,528.00
06-409-000-032	Telephone	13,688.05	15,000.00	91.3%	13,228.00
06-409-000-035	Insurance	6,974.00	9,297.00	75.0%	-
06-409-000-036	Electric	210,218.22	250,000.00	84.1%	204,222.00
06-409-000-037	Water	10,917.35	25,000.00	43.7%	6,366.00
06-409-000-052	Bldg Maint & Repair	1,513.72	8,000.00	18.9%	600.00
06-409-000-260	Building Supplies & Small Tools	259.00	15,000.00	1.7%	1,014.00
06-409-000-427	Waste Disposal	-	-	#DIV/0!	-
		244,764.58	329,797.00	74.2%	388,500.00
<i>Operations:</i>					
06-420-000-020	Supplies	13,772.22	20,000.00	68.9%	11,076.00
06-420-000-022	Chemicals	10,679.56	15,450.00	69.1%	7,377.00
06-420-000-023	Propane and Fuel Oil	4,649.20	2,575.00	180.6%	467.00
06-420-000-025	Maintenance & Repair	84,987.92	120,000.00	70.8%	134,712.00
06-420-000-030	Testing	33,359.25	40,000.00	83.4%	35,664.00
06-420-000-031	Pump & Haul	41,293.08	50,000.00	82.6%	59,530.00
06-420-000-032	Vegetation Management	10,227.69	20,000.00	51.1%	16,256.00
06-420-000-035	Permits	3,768.00	5,000.00	75.4%	2,967.00
06-420-000-042	Dues and Memberships	2,100.00	2,500.00	84.0%	2,100.00
06-420-000-045	Contracted Services	129,788.16	135,000.00	96.1%	119,358.00
06-420-000-048	Misc expenses	39,999.80	5,000.00	800.0%	5,000.00
06-420-000-235	Vehicle Maintenance	3,910.00	2,000.00	195.5%	-
06-420-000-329	PA One Call	1,451.29	2,500.00	58.1%	2,500.00
		379,986.17	420,025.00	90.5%	389,507.00
					367,500.00

Upper Uwchlan Township Municipal Authority
Statement of Revenues and Expenditures

For the Period Ended November 30, 2018
(Continued)

		Actual 2018 YTD	Budget 2018	% of Budget	Actual 2017 <i>(Audited)</i>	Budget 2017
	<u>Capital:</u>					
06-483-000-000	Capital Repair	176,981.93	30,000.00	589.9%	2,497.00	30,000.00
06-493-000-083	Depreciation	-	36,000.00	0.0%	56,406.00	36,000.00
		<hr/> 176,981.93	<hr/> 66,000.00	<hr/> 268.2%	<hr/> 58,903.00	<hr/> 66,000.00
	Total Expenditures before Operations Agreement and Transf	\$ 1,262,653.95	\$ 1,381,028.00	91.4%	\$ 1,242,401.00	\$ 1,351,667.00
	Net Income before Operations Agreement and Transfers	\$ 918,942.60	\$ 2,932,276.00	31.3%	\$ 1,502,921.00	\$ 1,333,077.00
	<u>Other:</u>					
06-471-000-010	Operations Agreement Fee to UUT	364,339.21	364,463.00	100.0%	364,562.00	364,563.00
	Operations Agreement Fee to UUT-new debt	50,000.00			-	-
		<hr/> 364,339.21	<hr/> 414,463.00	<hr/> 87.9%	<hr/> 364,562.00	<hr/> 364,563.00
06-492-000-010	Transfer to Sewer Fund	-	-	#DIV/0!	-	-
06-492-000-020	Transfer to Water Resource Protection Fu	-	-	#DIV/0!	-	-
06-492-000-030	Transfer to UUT Capital Fund	<hr/> -	<hr/> -	<hr/> #DIV/0!	<hr/> -	<hr/> -
	TOTAL EXPENDITURES	\$ 1,626,993.16	\$ 1,795,491.00	90.6%	\$ 1,606,963.00	\$ 1,716,230.00
	OPERATING INCOME	\$ 554,603.39	\$ 2,517,813.00	22.0%	\$ 1,138,359.00	\$ 968,514.00



**UPPER UWCHLAN TOWNSHIP MUNICIPAL AUTHORITY
CHESTER COUNTY
COMMONWEALTH OF PENNSYLVANIA**

2019 Budget

**Budget Presented – December 18, 2018
Budget Approved – January 15, 2019**

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About the Upper Uwchlan Township Municipal Authority

Organization

The Upper Uwchlan Township Municipal Authority (“Authority”) was incorporated by Upper Uwchlan Township, Chester County, Pennsylvania in 1990 for the purpose of operating the sewage collection, treatment plants and other facilities used in the processing and disposal of sewage from Township residents and businesses. All of the capital assets are owned by Upper Uwchlan Township and are operated and maintained by the Authority under a long-term arrangement.

Board of Directors

The Authority is governed by a five member Board of Directors. Board members are appointed by the Upper Uwchlan Township Board of Supervisors to serve for five (5) year terms. Each year, the Board votes to select a new Chairman and Vice-Chairman. The current Board members and their terms of office are:

<u>Member</u>	<u>Position</u>	<u>Term Expires</u>
Bill Quinn	Chairman	12/31/2021
Donald B. Carlson	Vice-Chairman	12/31/2018
Robert Watts	Member	12/31/2022
Hal Harper	Member	12/31/2018
Louis Schack	Member	12/31/2020

Management and Operations

The Authority has appointed G. Matthew Brown, P.E., DEE, ARRO Consulting, as the Authority Administrator and has hired ARRO Consulting as the Authority’s engineers. Clean Water, Inc. was appointed by the Authority as the Authority Operator.

The Authority has an administration agreement with Upper Uwchlan Township under which the Township employees perform many functions for the Authority and the Authority reimburses the Township for the cost of the services provided. These include: oversight, providing financial services (paying Authority bills, preparing monthly reports for Authority meetings, etc.) treasury functions, collection of sewer receipts and providing services to residents, maintenance of facilities (grass cutting, etc.) and any other services needed.

The Authority has no employees.

Executive Summary

Upper Uwchlan Township (Township) has eight (8) public wastewater systems located throughout the Township to collect and treat sewage generated by homes and businesses residing within each system service area. The Township also has a large number of homes and businesses that have private on-lot disposal systems consisting of septic tanks and drain fields, some of which are failing. This is especially critical as the Township lies within two (2) high quality watersheds; Marsh Creek (which lies within the East Branch of Brandywine Creek watershed) and Pickering Creek; which both ultimately drain to the Chesapeake Bay. Due to the initiatives outlined by the United States Environmental Protection Agency (US EPA) to protect the Delaware and Chesapeake Bays from nutrient overload, these high quality watersheds must be protected, specifically from higher levels of nitrogen and phosphorous compounds commonly found in wastewater. Failing or malfunctioning on-lot disposal systems have an adverse impact on the watersheds.

A review of the soils within the Township boundary using the Natural Resources Conservation Service Web Soil Survey indicates that over half of the soils in the Township have very limited suitability for septic tank absorption fields. The soil properties considered are those that affect absorption of the effluent, construction and maintenance of the system, and public health. Very limited suitability indicates that the soil has one or more features that are unfavorable for septic tank absorption fields. Knowing this, the Township strives to connect residences and businesses to one (1) of the eight (8) public wastewater systems whenever possible.

Another complication that results from the high quality watersheds that surround the Township is the method used to dispose of treated effluent. Of the eight (8) wastewater treatment plants (WWTP) in the Township, only two (2) are permitted by the Pennsylvania Department of Environmental Protection (PA DEP) to discharge treated wastewater directly to a stream (which is the conventional method of wastewater disposal in PA). The remaining six (6) WWTPs utilize land application of treated effluent for disposal. Land application must be used because obtaining a direct discharge permit is becoming increasingly difficult as the PA DEP continues to make the treatment requirements more and more stringent to comply with the USA EPA Chesapeake Bay program requirements. This becomes even more complicated when the stream that is being discharged to is high quality. The level of treatment that would be required to meet these standards is so high that it would not be cost effective to the Township or its residents to construct and operate the wastewater systems this way. Therefore, land application is used in lieu of direct discharge of disposal of treated wastewater.

The capital assets of the wastewater system are owned by the Township, but are operated and maintained by the Township Municipal Authority (Authority). More detailed information on each of the eight (8) wastewater facilities, what has been achieved in the past year, and the goals for the future can be found on the next page.

2018 Accomplishments and Our Goals for 2019

What was accomplished in 2018

In 2018, the Authority announced an increase in the quarterly sewer rates by 8.6% to \$190 per quarter. The increase of \$15 per quarter was imperative for the Authority to continue to provide safe and reliable sewer services. While there were not many major projects that broke ground over the course of the calendar year, the Authority did secure funding for projects that are on schedule for 2019 and beyond (discussed in additional detail below).

The biggest undertaking completed by the Authority in 2018 was a fencing project that improved safety and security at several wastewater facilities, including the Eaglepointe WWTP, the Lakeridge WWTP effluent disposal sand mounds and absorption trenches, and the Reserve at Eagle effluent storage lagoon and spray fields. This project was necessary for the following reasons:

- The Eaglepointe WWTP is located on a hill and the ground that supported the surrounding fence had washed out due to rain and erosion. This washed out ground left the WWTP exposed, where there are open tanks and chemical storage which could present a hazard to a non-authorized individual.
- The Lakeridge effluent disposal areas have been used in the past by individuals riding recreational vehicles. This activity presents a risk to the disposal areas as compaction of the soils can permanently restrict the use of the area for effluent disposal.
- The Reserve at Eagle fencing had been damaged and was repaired to prevent trespassing.

The Authority also awarded a bid for a project that will relocate the existing sludge holding tank at the Lakeridge WWTP. The WWTP was originally designed with the holding tank located indoors, however the Authority's insurance adjuster indicated that in order to maintain coverage, the tank would have to be moved outdoors.

Throughout the year, the Authority reviewed and advised the Township Board of Supervisors regarding several legal documents, including:

- The Septage Management Ordinance that will be used to mandate regular inspection and pumping requirements for residents with on-lot septic systems.
- An amendment to the West Vincent Township Intermunicipal Agreement which dedicates the land and wastewater facilities constructed in West Vincent Township as part of the Route 100 Regional Wastewater System to the Authority for upkeep and operation.

What is planned for 2019

As previously stated, in 2018 the Authority secured funding in the amount of \$5,280,000 for projects that are scheduled to take place in 2019 or later. These projects are as follows:

- \$2.5 million for the Route 100 WWTP Phase III upgrade
 - As discussed in the Route 100 Regional Wastewater Treatment Facility Detailed Description, the McKee/Fetter's property development is going to exceed the Phase II capacity of the Route 100 WWTP. The developer is going to design and construct Phase III of the WWTP, and the Township will purchase excess capacity that results from the upgrade that the developer does not utilize for the McKee/Fetter's property. This excess capacity will be used for connecting new or existing homes within the Authority's service area to the Route 100 WWTP.
- \$1.1 million for the Byers Road Phase II collection system expansion
 - Part of the Authority's most recent update to the Act 537 Sewage Facilities Plan on record with the PA DEP indicates that a collection system will be installed out Byers Road east of Route 100. The design of this expansion is complete, and the only outstanding item is obtaining all approvals from PA DEP. The project is anticipated to be publicly bid in February of 2019, and construction is expected to begin in April of 2019.
- \$1 million for the purchase of land for effluent disposal
 - As discussed in the Executive Summary, six (6) of the wastewater facilities within the Township utilize land application for treated effluent as opposed to direct stream discharge. For most of the facilities, there was no anticipated growth at the time of design and construction, therefore there is adequate disposal capacity for the size of the WWTP. However, the Route 100 WWTP was constructed with the knowledge that it would be expanded. The Township does not currently own enough land to dispose of all 900,000 gallons of treated effluent that could be generated in a day once Phase III is constructed. Therefore, purchase of land that is sufficient for land application of wastewater is an important task for the Township and Authority to pursue.
- Remaining funds will be used for the Milford Farms collection system expansion
 - Milford Farms is known as an area with a large number of failing septic systems. As part of the Chester County Health Department's review of the Jankowski Tract planning documents, they commented that "there have been several malfunctions along Surrey Lane, Font Road and Carriage Drive, the area would benefit public sewerage." This, in addition to the presence of residents at the Authority meetings toward the end of the 2018 calendar year, is the impetus behind the beginning of design of a collection system in this area.

Wastewater Treatment Facilities – At a Glance

Facility Name	Location	Daily Capacity (gallons)	Disposal Methods	Date Placed in Service	Number of businesses or residences served
Eaglepointe	South of Ticonderoga Blvd, adjacent to the Pa. Turnpike	15,000	Effluent is directly discharged to a tributary of Marsh Creek	2003	30 businesses located west of Route 100 and Little Conestoga Road
Greenridge	Southwest of the intersection of Greenridge Rd and Dan Dr	15,125	Effluent is discharged to one disposal field for drip irrigation	2005	61 homes in Greenridge & Stonehedge developments
Lakeridge	North of Dorlan Mill Rd and to the east of Moore Rd	40,000	Effluent is discharged to a series of five sand mounds and one subsurface absorption bed	1983	148 homes in Lakeridge, Hunter's Ridge and Ivystone developments
Marsh Harbour	Between Mallard Ln and Carpenter's Cove Ln	82,000	Effluent is discharged to two disposal fields for spray irrigation	1990	All homes in Marsh Harbour and Heron Hill developments
Meadow Creek	Southeast corner of Styer Rd and Meadow Creek Ln	1,300	Effluent is discharged to one subsurface absorption bed	1990	5 homes in Meadow Creek development
Route 100 Regional *	East of Route 100 along the north side of Fellowship Rd	900,000	Effluent is discharged to 19 disposal fields for spray and drip irrigation	2004	All homes in Byers Station, Reserve at Eagle, Reserve at Waynebrook, Windsor Ridge, Eagle Manor, Heather Hill, and Windsor Place.
Saybrooke	Southwest side of Yarmouth Ln	9,200	Effluent is discharged to a series of four subsurface absorption beds	1999	41 homes in Saybrooke development
St. Andrews Brae	North side of Kiloran and Bryan Wynds southern intersection	3,600	Effluent is directly discharged to a tributary of Marsh Creek	2003	13 homes in St. Andrews Brae development

BASIS OF ACCOUNTING AND BUDGETING

Accounting Basis

The Authority uses the accrual basis of accounting. Under this basis, revenues are recorded when earned and expenses are recorded when incurred, even though actual payment or receipt may not occur until after the period ends.

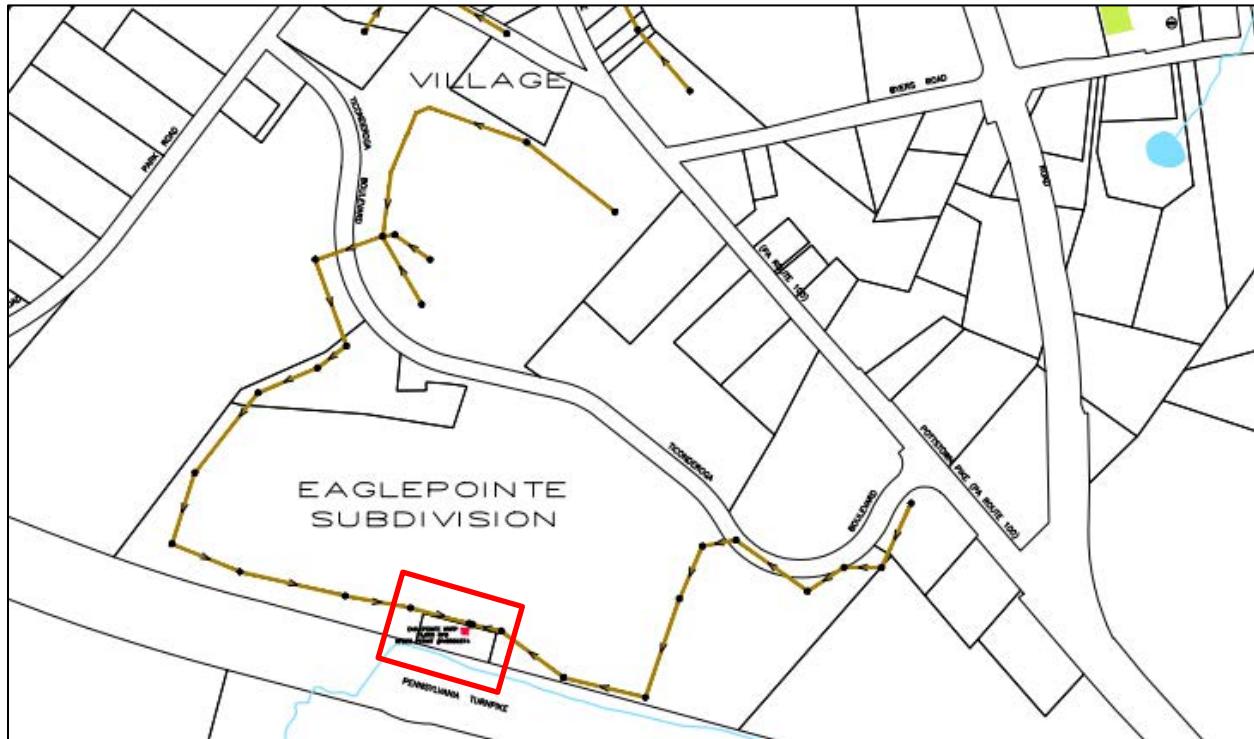
Basis of Budgeting

The Authority's budget has been prepared using the modified accrual method of accounting. Modified accrual accounting recognizes revenues when they become measurable and available. **Measurable** means that the dollar amount of the transaction is known. **Available** means that it is collectible within the current period, or soon enough after the end of the current period to pay liabilities of the current period. For this purpose, the Township considers revenues to be available if they are collected within 30 days of the reporting period. Expenditures are generally recorded when a liability is incurred.

Wastewater Treatment Facilities – Detailed Description

Eaglepointe Wastewater System

The Eaglepointe Wastewater System consists of the Eaglepointe WWTP, rated for 15,000 gallons per day (gpd), which collects sewage from commercial properties along Eaglepointe Boulevard. The treatment process consists of an equalization tank, an aeration tank, a clarifier, sand filters, and a chemical contact tank. Following treatment, effluent is discharged directly into a tributary of Marsh Creek under the PA DEP National Pollutant Discharge Elimination System (NPDES), Permit No. PA0036374.



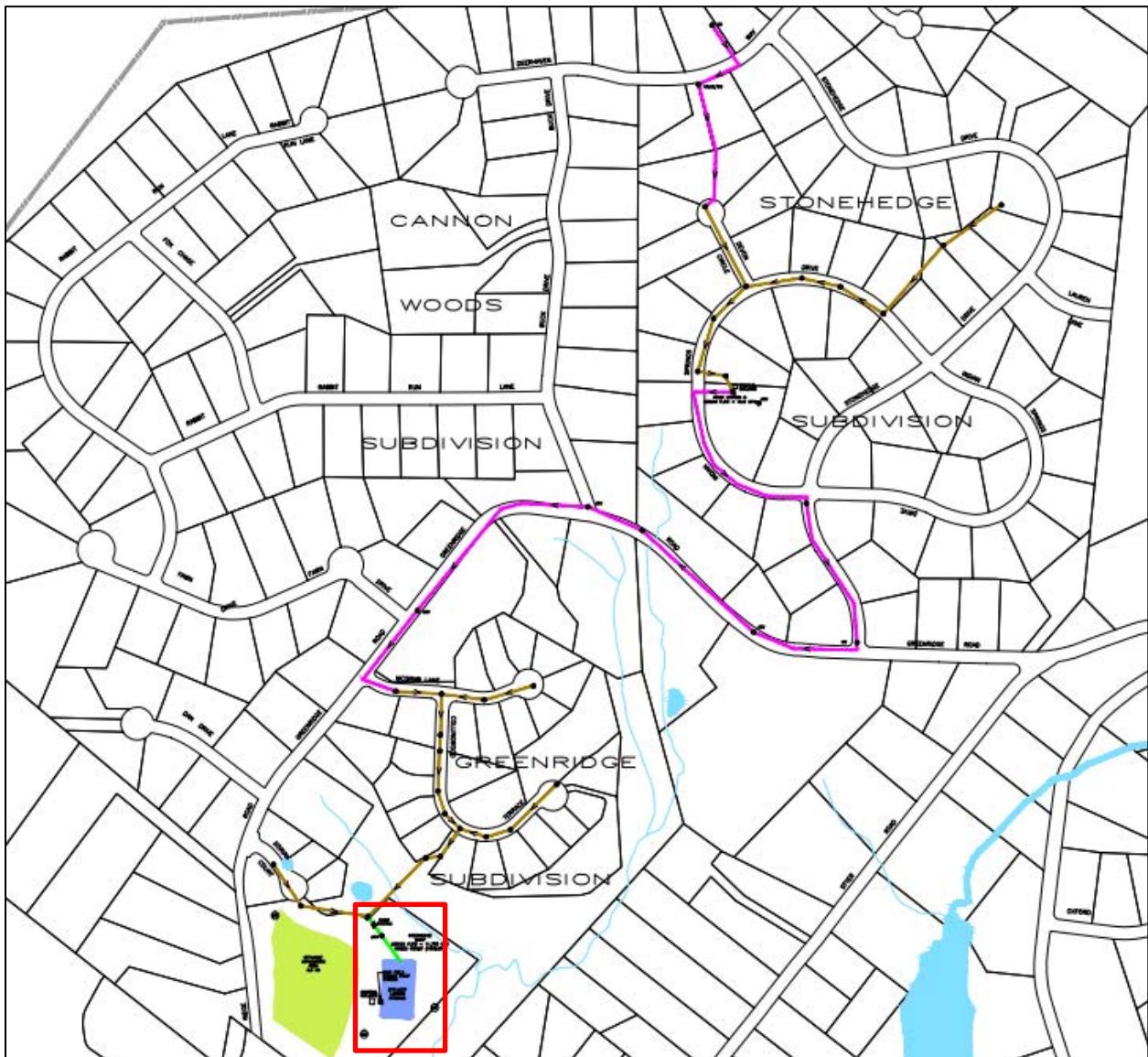
Eaglepointe Wastewater System Map

NOTE: For additional detail, see Township Sewer Atlas in township office

NOTE: Red rectangle indicates WWTP

Greenridge Wastewater System

The Greenridge Wastewater System consists of the Stonehedge conveyance pump station and the Greenridge WWTP, rated for 15,125 gpd, which collect sewage from residential customers within the Greenridge and Stonehedge developments. The Stonehedge conveyance pump station collects sewage from the Stonehedge development and conveys it to the Greenridge WWTP while sewage from the Greenridge development flows via gravity to the WWTP. The wastewater from both developments is received by an influent pump station on the WWTP property, which conveys the sewage to a dual-sectioned treatment lagoon. Following treatment, the wastewater flows through sand filters prior to disposal via drip irrigation within the field located behind the WWTP. This is done under PA DEP Water Quality Management (WQM) Permit No. 1502403.



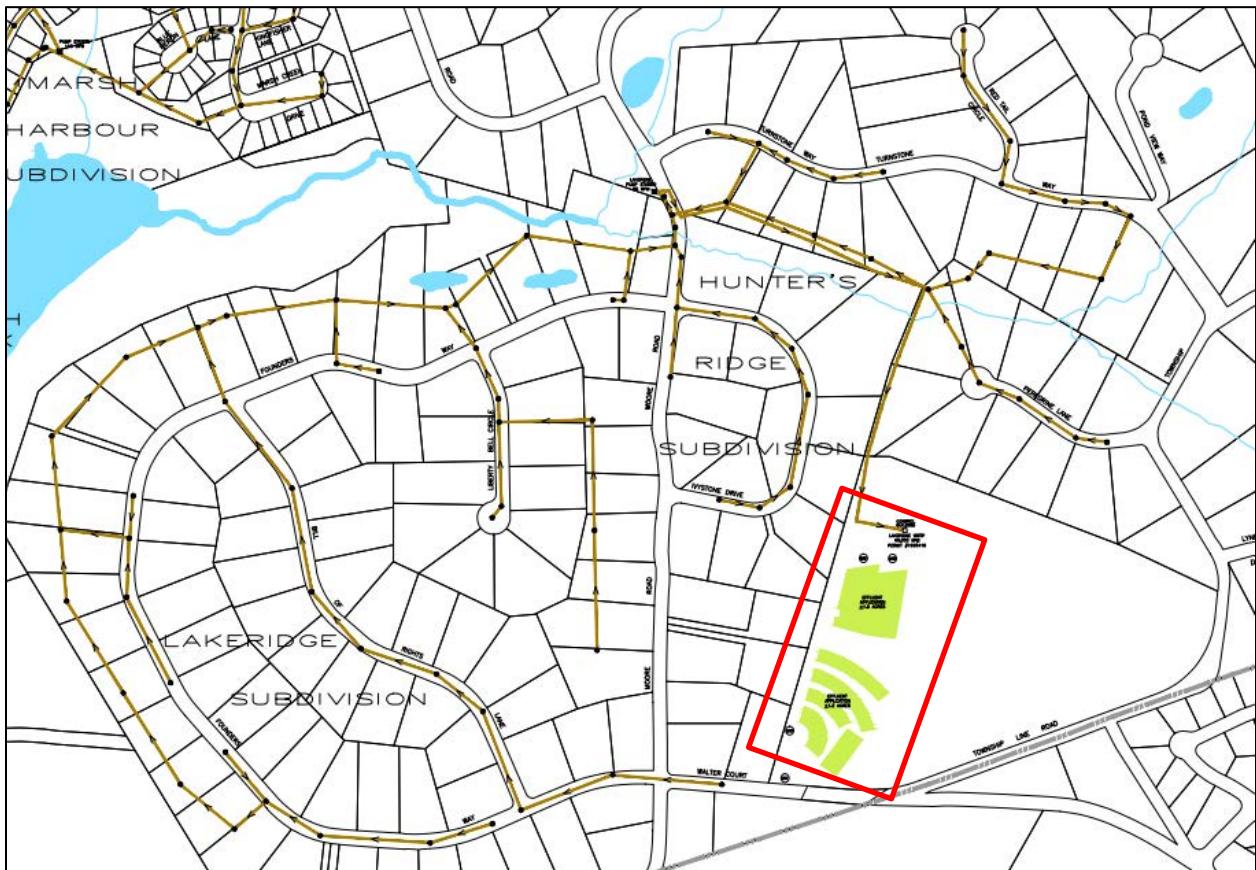
Greenridge Wastewater System Map

NOTE: For additional detail, see Township Sewer Atlas in township office

NOTE: Red rectangle indicates WWTP

Lakeridge Wastewater System

The Lakeridge Wastewater System consists of the Lakeridge conveyance pump station and the Lakeridge WWTP, rated for 42,000 gpd, which collects sewage from residential customers in the Lakeridge, Hunter's Ridge, and Ivystone developments. The Lakeridge conveyance pump station collects sewage from the developments and conveys it to the WWTP. The treatment process consists of a sequencing batch reactor (SBR), holding tank, and sand filter prior to disposal through one (1) of five (5) sand mounds, then to a subsurface absorption bed for final disposal. This is done under PA DEP WQM Permit No. 1590416.



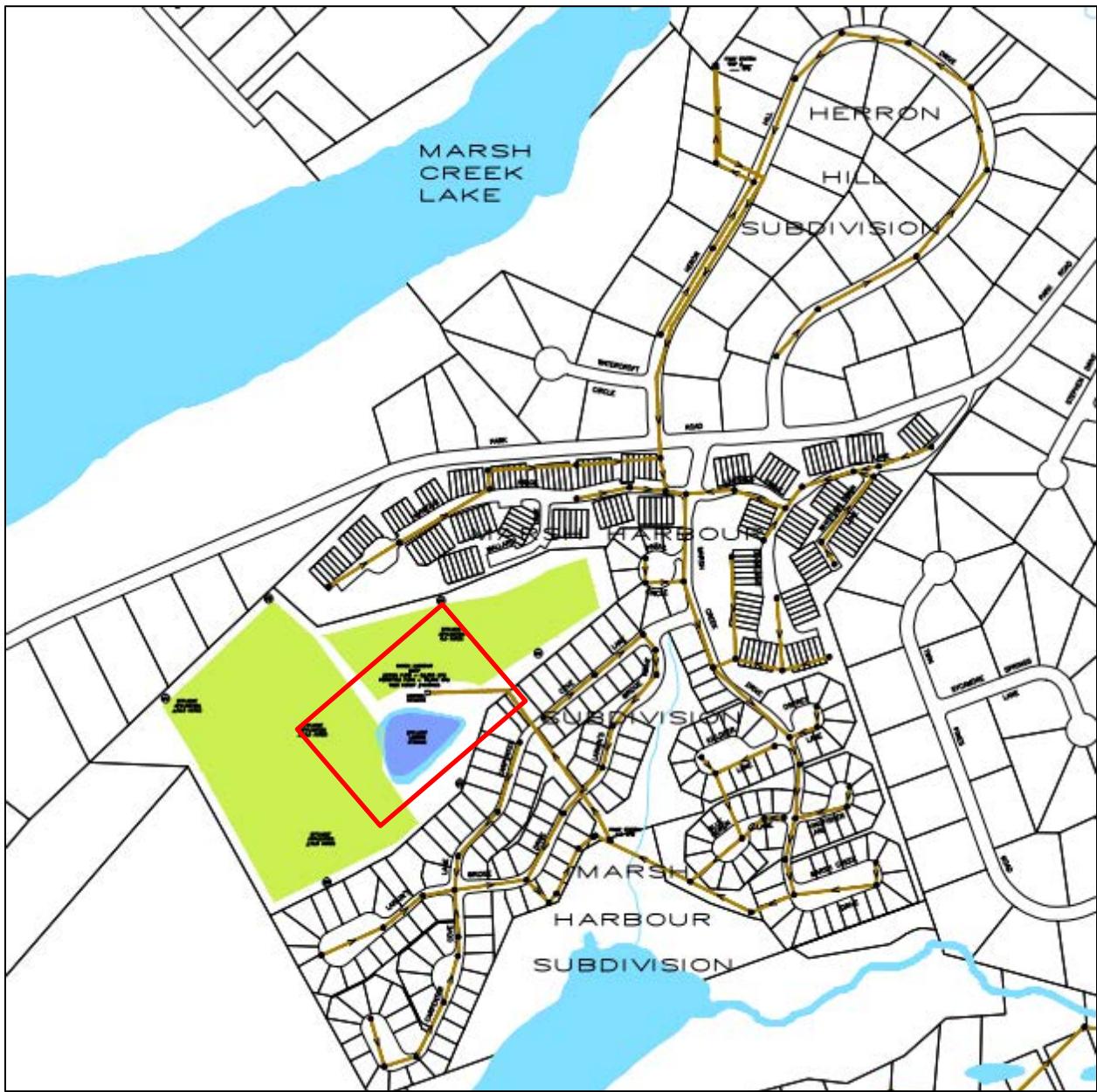
Lakeridge Wastewater System Map

NOTE: For additional detail, see Township Sewer Atlas in township office

NOTE: Red rectangle indicates WWTP

Marsh Harbour Wastewater System

The Marsh Harbour Wastewater System consists of the Herron Hill conveyance pump station, the Marsh Harbour conveyance pump station, and the Marsh Harbour WWTP, rated for 82,000 gpd which collects sewage from residential customers within the Marsh Harbour and Herron Hill developments. The Herron Hill pump station collects sewage from homes within the Herron Hill development and pumps it to the Marsh Harbour development collection system. Wastewater from both the Herron Hill and Marsh Harbour developments is collected by the Marsh Harbour pump station and conveyed to the Marsh Harbour WWTP. The treatment process consists of a bar screen, SBR, and a storage lagoon prior to discharge via spray irrigation on one (1) of two (2) fields located behind the WWTP. This is done under PA DEP WQM Permit No. 1598425.



Marsh Harbour Wastewater System Map

NOTE: For additional detail, see Township Sewer Atlas in township office

NOTE: Red rectangle indicates WWTP

Meadow Creek Wastewater System

The Meadow Creek Wastewater System consists of the Meadow Creek WWTP, rated for 1,300 gpd, collects sewage from five (5) residential customers in the Meadow Creek development. The treatment process consists of an equalization tank prior to discharge through a seepage field located at the corner of Meadow Creek Lane and Styer Road. As the Meadow Creek WWTP is only a seepage field, it is not permitted through PA DEP.



Meadow Creek Wastewater System Map

NOTE: For additional detail, see Township Sewer Atlas in township office

NOTE: Red rectangle indicates WWTP

Route 100 Regional Wastewater System

The Route 100 Regional Wastewater System consists of eight (8) conveyance pump stations, the Route 100 Regional WWTP rated for 600,000 gpd, and seven (7) effluent disposal systems. This wastewater system was designed to be upgraded in phases, which are further discussed below. The Byers Station, Eagle Manor, Ewing, Ewing West Vincent, Little Conestoga, Reserve at Eagle 1, Reserve at Eagle 2, and Windsor Ridge conveyance pump stations collect wastewater from residential customers throughout numerous developments and convey it to the WWTP for treatment (discussed in additional detail below). Following treatment, the effluent is distributed to the Reserve at Eagle, Eagle Hunt, Reserve at Waynebrooke, Windsor Ridge, Byers Station, or Ewing Tract effluent disposal system for storage, filtration, and disposal via spray or drip irrigation. This is completed under PA DEP WQM Permit No. 1086294.

Route 100 Regional WWTP Phase I:

Phase I had a capacity of 300,000 gpd and commenced operation in 2004. This phase provided wastewater service to residential customers in the Byers Station (including the Ewing Tract), Eagle Hunt, Reserve at Eagle, Reserve at Waynebrook, and Windsor Ridge developments. Phase I treatment was completed via a secondary treatment aerated lagoon.

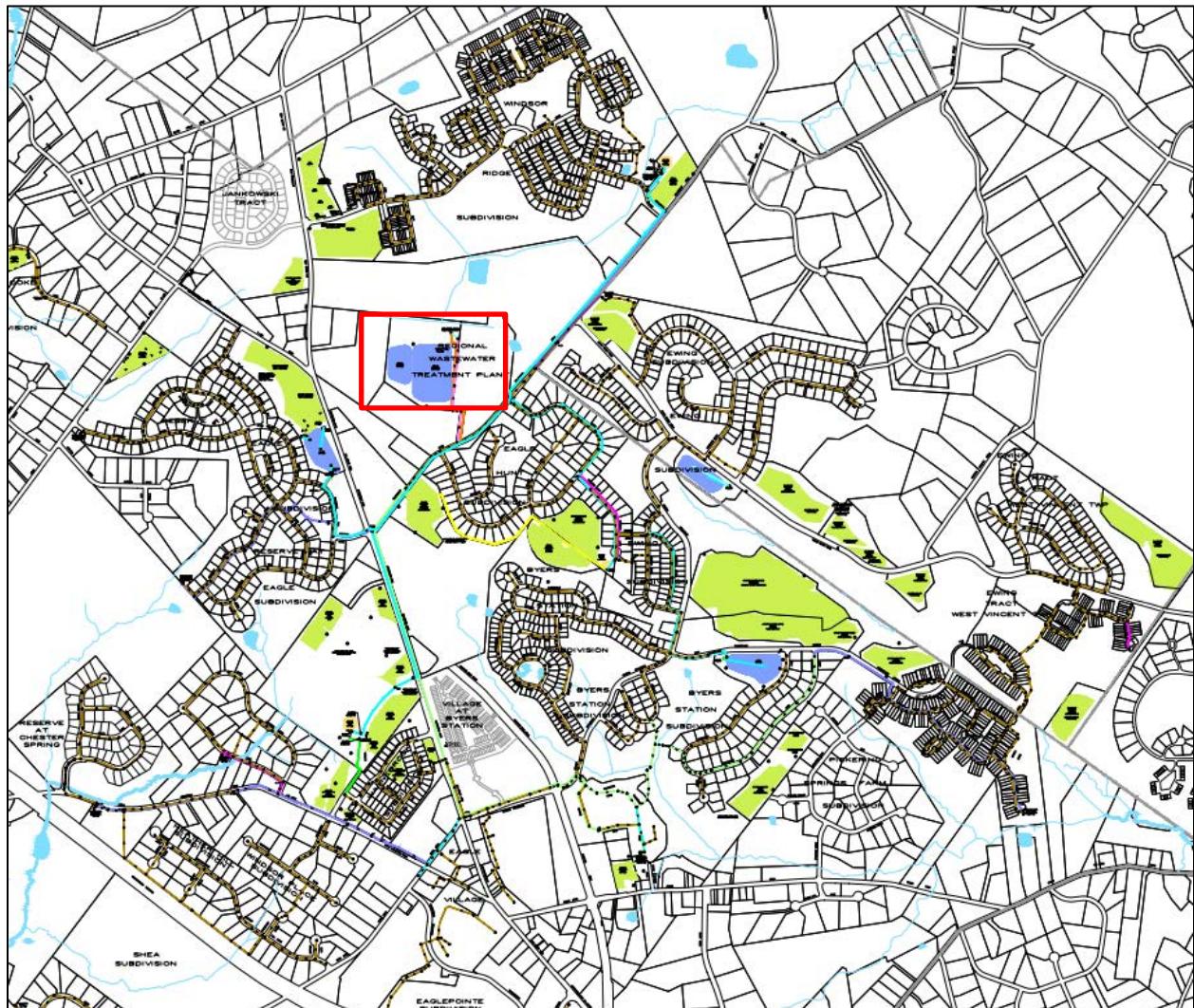
Route 100 Regional WWTP Phase II:

Phase II added an additional 300,000 gpd of capacity for a total of 600,000 gpd and commenced operation in 2015. This phase has already provided public sewer to the Eagle Manor, Windsor Place,

and Heather Hill developments, and there are plans for additional connections in upcoming years. The Phase II expansion of the WWTP included the addition of two (2) SBRs to allow for a higher level of treatment, specifically nitrogen reduction. Generally, two-thirds of the incoming wastewater is treated by the SBRs and the remaining third is treated by the secondary treatment aerated lagoon constructed in Phase I.

Route 100 Regional WWTP Phase III:

Phase III is currently undergoing design and permitting due to a new development that has been approved in the Township, the McKee/Fetter's Property. This property will exceed the Phase II capacity of the WWTP, so the developer is going to construct Phase III. This phase will add two (2) additional SBRs to the WWTP, allowing for 800,000 gpd of treatment capacity in the SBRs and the remaining 100,000 gpd by the secondary treatment aerated lagoon constructed in Phase I.



Route 100 Regional Wastewater System Map

NOTE: For additional detail, see Township Sewer Atlas in township office

NOTE: Red rectangle indicates WWTP

Saybrooke Wastewater System

The Saybrooke Wastewater System consists of the Seabury, Saybrooke 1, and Saybrooke 2 conveyance pump stations and the Saybrooke WWTP, rated for 9,200 gpd, which collect sewage from residential customers within the Saybrooke development. The Seabury pump station collects sewage from five (5) homes along Seabury Lane and pumps it to the Saybrooke 2 pump station. The Saybrooke 2 pump station conveys sewage collected from residences on the western part of Yarmouth Lane and Seabury to the WWTP, while the Saybrooke 1 pump station collects and conveys sewage collected from residences on the eastern part of Yarmouth Lane. The treatment process consists of an SBR followed by sand filtration and an ultraviolet disinfection system. Following treatment, treated effluent is discharged to one (1) of four (4) subsurface absorption beds located adjacent to the WTWP property under PA DEP WQM Permit No. 1593413.



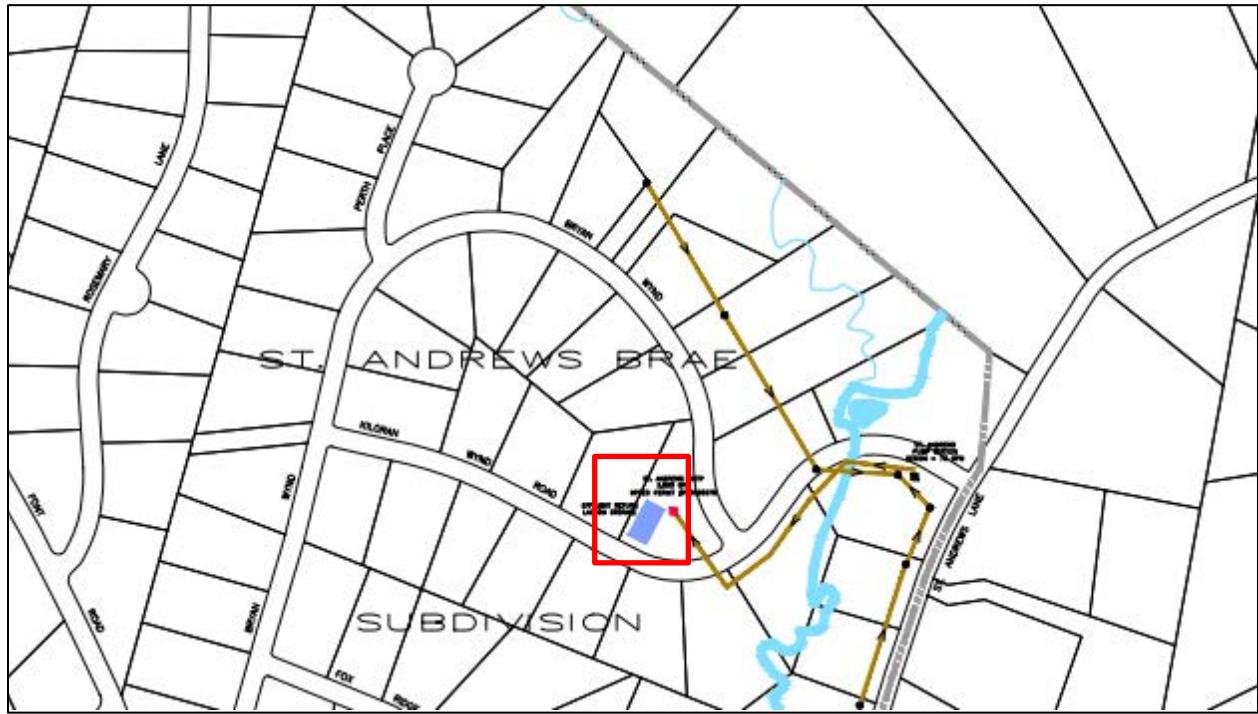
Saybrooke Wastewater System Map

NOTE: For additional detail, see Township Sewer Atlas in township office

NOTE: Red rectangle indicates WWTP

St. Andrew's Brae Wastewater System

The St. Andrew's Brae Wastewater System consists of the St. Andrew's Brae conveyance pump station and the St. Andrew's Brae WWTP, rated for 3,600 gpd, which collect sewage from residential customers within the St. Andrew's Brae development. The treatment process consists of an equalization tank, an aeration tank, a clarifier, disinfection, sand filtration, and dechlorination. Following treatment, treated effluent is discharged directly into Black Horse Creek under PA DEP NPDES Permit No. PA0058378.



St. Andrew's Brae Wastewater System Map

NOTE: For additional detail, see Township Sewer Atlas in township office

NOTE: Red rectangle indicates WWTP

	2016 Actual (audited)	2017 Actual (audited)	YTD 2018 (thru 10/31)	2018 Budget	\$ Over Budget	% of Budget	2019 Budget	2020 Budget	2021 Budget	2022 Budget	2023 Budget
Income											
300 Revenues											
06-340-000-000 Interest Income	10,473	7,811	12,471	7,300	5,171	71%	15,000	15,000	15,000	20,000	20,000
06-365-000-000 Usage Fees - Residential	1,784,562	1,924,864	1,656,383	2,027,640	(371,257)	-18%	2,139,571	2,396,320	2,540,099	2,590,901	2,642,718
06-365-000-001 Usage Fees - Commercial	92,513	113,285	65,205	101,014	(35,809)	-35%	100,000	100,000	100,000	120,000	120,000
06-365-000-010 Tapping Fees	861,271	139,413	31,256	2,176,350	(2,145,094)	-99%	2,543,000	1,552,000	500,000	-	-
06-370-000-000 Misc Revenue	153	174,949	208	1,000	(792)	-79%	1,000	1,000	1,000	1,000	1,000
06-393-000-100 Proceeds from Long Term Debt	-	-	-	-	-	0%	5,393,221	-	-	-	-
06-395-000-000 Refund of Prior Year Expenditures	-	-	1,200	-	-	0%	-	-	-	-	-
06-395-000-100 Transfer from Sewer Fund	-	385,000	-	-	-	0%	-	-	-	-	-
Total Income	2,748,972	2,745,322	1,766,723	4,313,304	(2,547,781)	-161%	10,191,792	4,064,320	3,156,099	2,731,901	2,783,719
Expense											
General											
06-400-000-001 Administrator	180,080	212,464	172,247	234,219	(61,972)	-26%	241,246	248,483	255,937	263,616	271,524
06-400-000-002 Authority Administrator	105,693	123,249	102,196	120,000	(17,804)	-15%	120,000	120,000	100,000	103,000	106,090
06-400-000-003 Professional Fees	2,210	3,001	7,534	12,000	(4,466)	-37%	12,000	12,000	13,000	14,000	14,000
06-400-000-200 Admin Supplies	520	10	-	1,000	(1,000)	-100%	1,000	1,030	1,061	1,093	1,126
06-400-000-341 Advertising	-	-	2,716	1,000	1,716	172%	5,000	2,000	2,000	2,000	2,000
06-400-000-352 Insurance - Liability	7,284	8,133	4,661	2,337	2,324	99%	5,545	5,711	5,882	6,059	6,240
06-400-000-355 Bank Fees	-	530	309	650	(341)	-52%	650	650	650	650	650
06-402-000-450 Audit Fees	4,850	5,050	5,300	5,200	100	2%	5,450	5,600	5,750	5,900	6,050
06-404-000-000 Legal Fees	10,816	19,969	12,067	20,800	(8,733)	-42%	20,800	20,800	20,800	20,800	20,800
06-406-000-100 Utility Billing Costs	10,697	18,530	8,079	18,000	(9,921)	-55%	10,000	10,300	10,609	10,927	11,255
06-408-000-000 Engineering Fees	168,122	166,097	335,184	150,000	185,184	123%	150,000	150,000	180,000	180,000	180,000
Total General Expenses	490,272	557,033	650,293	565,206	85,087	15%	571,690	576,574	595,690	608,044	619,735
Building Expenses											
06-409-000-031 Lawn Care	8,336	11,528	1,194	7,500	(6,306)	-84%	5,000	5,000	5,000	5,000	5,000
06-409-000-032 Telephone	14,161	13,228	12,426	15,000	(2,574)	-17%	15,000	15,000	15,000	15,000	15,000
06-409-000-035 Insurance - Property	1,169	-	6,974	9,297	(2,323)	-25%	8,756	9,194	9,654	10,137	10,643
06-409-000-036 Electric	216,426	204,222	190,997	250,000	(59,003)	-24%	250,000	275,000	275,000	290,000	290,000
06-409-000-037 Water	23,983	6,366	10,560	25,000	(14,440)	-58%	25,000	25,000	25,000	25,000	25,000
06-409-000-052 Building Maintenance & Repair	6,319	600	1,514	8,000	(6,486)	-81%	10,000	10,000	10,000	10,000	10,000
06-409-000-260 Building Supplies and Small Tools	4,169	1,014	259	15,000	(14,741)	-98%	5,000	5,000	5,000	5,000	5,000
Total Building Expenses	274,563	236,958	223,924	329,797	(105,873)	-32%	318,756	344,194	344,654	360,137	360,643
Operations											
06-420-000-020 Supplies	16,374	11,076	12,614	20,000	(7,386)	-37%	20,000	20,000	22,000	22,000	22,000
06-420-000-022 Chemicals	8,362	7,377	8,532	15,450	(6,918)	-45%	15,000	20,000	20,000	20,000	20,000
06-420-000-023 Propane & Fuel Oil	1,419	467	4,649	2,575	2,074	81%	5,000	5,000	5,000	5,000	5,000
06-420-000-025 Maintenance & Repair	98,971	134,712	80,686	120,000	(39,314)	-33%	120,000	120,000	120,000	120,000	120,000
06-420-000-030 Testing	38,148	35,664	28,535	40,000	(11,465)	-29%	40,000	40,000	40,000	40,000	40,000
06-420-000-031 Pump and Haul	398,819	59,530	35,834	50,000	(14,166)	-28%	50,000	45,000	40,000	40,000	40,000
06-420-000-032 Vegetation Management	8,362	16,256	10,926	20,000	(9,074)	-45%	20,000	20,000	20,000	20,000	20,000
06-420-000-035 Permits	2,703	2,967	3,768	5,000	(1,232)	-25%	5,000	5,000	5,000	5,000	5,000
06-420-000-042 Dues and Memberships	2,110	2,100	2,100	2,500	(400)	-16%	2,500	2,500	2,500	2,500	2,500
06-420-000-045 Contracted Services	256,371	119,358	89,561	135,000	(45,439)	-34%	135,000	135,000	120,000	120,000	120,000
06-420-000-048 Misc Expenses	5,022	-	43,910	5,000	38,910	778%	10,000	10,000	10,000	10,000	10,000
06-420-000-235 Vehicle Maintenance	-	-	-	2,000	(2,000)	-100%	2,000	2,000	2,000	2,000	2,000
06-420-000-329 PA One Call	980	-	1,302	2,500	(1,198)	-48%	2,500	2,500	2,500	2,500	2,500
Total Operations	837,641	389,507	322,417	420,025	(97,608)	-23%	427,000	427,000	409,000	409,000	409,000

	2016 Actual (audited)	2017 Actual (audited)	YTD 2018 (thru 10/31)	2018 Budget	\$ Over Budget	% of Budget	2019 Budget	2020 Budget	2021 Budget	2022 Budget	2023 Budget
06-483-000-000 Capital Repair	-	2,497	63,349	30,000	33,349	111%	50,000	50,000	50,000	50,000	50,000
06-483-000-100 Capital Construction	-	-	-	-	-	0%	1,500,000	2,500,000	1,393,221	-	-
06-492-000-000 Start Up Costs	-	-	-	-	-	0%	-	-	-	-	-
06-493-000-083 Depreciation	34,794	56,406	-	36,000	(36,000)	-100%	50,000	50,000	50,000	50,000	50,000
Total Misc. Expenses	34,794	58,903	63,349	66,000	(2,651)	-4%	1,600,000	2,600,000	1,493,221	100,000	100,000
06-492-000-020 Transfer to Water Resource Protection Fund	-	-	-	-	-	0%	-	-	-	-	-
Tapping Fee Reimbursement	-	-	-	-	-	0%	-	-	-	-	-
	-	-	-	-	-	#DIV/0!	-	-	-	-	-
Total Expenses	1,637,270	1,242,401	1,259,983	1,381,028	(121,045)	-9%	2,917,447	3,947,768	2,842,565	1,477,181	1,489,379
Net Income before Operations Agreement	1,111,702	1,502,921	506,740	2,932,276	(2,425,536)	-83%	7,274,346	116,552	313,534	1,254,720	1,294,340
Other											
Operations Agreement Fees to UUT	367,963	364,562	364,339	364,463	(124)	0%	369,213	366,813	368,013	369,113	364,863
Operations Agreement Fees to UUT - 201:	-	-	-	50,000	(50,000)	-100%	190,681	237,494	236,744	235,994	235,244
Total Other	367,963	364,562	364,339	414,463	(50,124)	-12%	559,894	604,307	604,757	605,107	600,107
Net Income after Operations Agreement	743,739	1,138,359	142,401	2,517,813	(2,375,412)	-94%	6,714,452	(487,755)	(291,222)	649,614	694,234

**Upper Uwchlan Township Municipal Authority
2019 Capital Budget Equipment Replacement Recommendations**

The following are recommendations for replacement or maintenance of equipment and facilities for the year 2019 for each of the wastewater treatment systems maintained by the Township.

Eaglepointe Wastewater System

Equipment Type	Expected Service Life (years)	Condition Rating*	Estimated Remaining Useful Life (years)	Quantity	Unit	Unit Cost	Estimated Cost
Total Estimated Cost:							\$0.00

Notes:

1. There are no recommendations for replacement or maintenance of equipment for the year 2019 at this wastewater system

Greenridge Wastewater System

Equipment Type	Expected Service Life (years)	Condition Rating*	Estimated Remaining Useful Life (years)	Quantity	Unit	Unit Cost	Estimated Cost
Total Estimated Cost:							\$0.00

Notes:

1. There are no recommendations for replacement or maintenance of equipment for the year 2019 at this wastewater system

Lakeridge Wastewater System

Equipment Type	Expected Service Life (years)	Condition Rating*	Estimated Remaining Useful Life (years)	Quantity	Unit	Unit Cost	Estimated Cost
Repave WWTP Driveway ¹				1	EA	\$20,000.00	\$20,000.00
Relocate Sludge Holding Tank - General Contract ²				1	EA	\$520,500.00	\$520,500.00
Relocate Sludge Holding Tank - Electrical Contract ²				1	EA	\$59,350.00	\$59,350.00
Total Estimated Cost:							\$599,850.00

Notes:

1. Estimated Cost as provided by Department of Public Works
2. Estimated Cost as noted in the Intent to Award letter dated October 24, 2018 issued by K. McAghan of ARRO Consulting, Inc. to the UUTMA

**Upper Uwchlan Township Municipal Authority
2019 Capital Budget Equipment Replacement Recommendations**

The following are recommendations for replacement or maintenance of equipment and facilities for the year 2019 for each of the wastewater treatment systems maintained by the Township.

Marsh Harbour Wastewater System

Equipment Type	Expected Service Life (years)	Condition Rating*	Estimated Remaining Useful Life (years)	Quantity	Unit	Unit Cost	Estimated Cost
Repave WWTP Driveway ¹				1	EA	\$20,000.00	\$20,000.00
Pine Tree Removal ²				4	EA	\$1,250.00	\$5,000.00
Pikeland control building repair and rehabiliataion ³				1	LS	\$16,840.00	\$16,840.00
Total Estimated Cost:							\$41,840.00

Notes:

1. Estimated Cost as provided by the Department of Public Works
2. Estimated Cost per recent bidding documents - this cost may vary based on caliper and height of trees
3. Costs as provided by Pikeland, who has been contracted to complete this work.

Meadow Creek Wastewater System

Equipment Type	Expected Service Life (years)	Condition Rating*	Estimated Remaining Useful Life (years)	Quantity	Unit	Unit Cost	Estimated Cost
Total Estimated Cost:							\$0.00

Notes:

1. There are no recommendations for replacement or maintenance of equipment for the year 2019 at this wastewater system

Route 100 Wastewater System

Equipment Type	Expected Service Life (years)	Condition Rating	Estimated Remaining Useful Life (years)	Quantity	Unit	Unit Cost	Estimated Cost
Wet Well Coating (Spray Roq-125 mil thickness) ¹				300	SF	\$16.67	\$5,000.00
Spare pump for remote pump stations ²				4	LS	\$10,000.00	\$40,000.00
Total Estimated Cost:							\$45,000.00

Notes:

1. Quantity is approximate and may change upon closer inspection
2. Spare pumps are required at the Windsor Ridge, Ewing West Vincent, Ewing Tract, and Reserve at Eagle 2 pump stations. Estimated cost per WWTP operator Brian Norris.

Saybrooke Wastewater System

**Upper Uwchlan Township Municipal Authority
2019 Capital Budget Equipment Replacement Recommendations**

The following are recommendations for replacement or maintenance of equipment and facilities for the year 2019 for each of the wastewater treatment systems maintained by the Township.

Equipment Type	Expected Service Life (years)	Condition Rating*	Estimated Remaining Useful Life (years)	Quantity	Unit	Unit Cost	Estimated Cost
Total Estimated Cost:							\$0.00

Notes:

1. There are no recommendations for replacement or maintenance of equipment for the year 2019 at this wastewater system

St. Andrew's Brae Wastewater System

Equipment Type	Expected Service Life (years)	Condition Rating*	Estimated Remaining Useful Life (years)	Quantity	Unit	Unit Cost	Estimated Cost
Total Estimated Cost:							\$0.00

Notes:

1. There are no recommendations for replacement or maintenance of equipment for the year 2019 at this wastewater system

2019 Summary Capital Budget Replacement Costs

UUTMA Wastewater Facility Equipment Recommendations

Eaglepointe Wastewater System	\$0.00
Greenridge Wastewater System	\$0.00
Lakeridge Wastewater System	\$599,850.00
Marsh Harbour Wastewater System	\$41,840.00
Meadow Creek Wastewater System	\$0.00
Route 100 Wastewater System	\$45,000.00
Saybrooke Wastewater System	\$0.00
St. Andrew's Brae Wastewater System	\$0.00

Miscellaneous Budgetary Items

System - UCC Code Updates	\$30,000.00
Capital Equipment Purchases shared with Twp	\$20,000.00
System - Misc. Capital Purchases	\$25,000.00

Total Cost: **\$761,690.00**

GLOSSARY

Accrual Basis of Accounting – The basis of accounting in which revenues are recognized when they are earned and expenses are recognized when they are incurred.

Act 537 Plan – refers to the Pennsylvania Sewage Facilities Act, as amended, enacted on January 24, 1966 to correct existing sewage disposal problems and prevent future problems. The Act requires proper planning in all types of sewage disposal situations. Local municipalities are largely responsible for administering the Act 537 sewage disposal program.

Assets – Property owned by the Township that has a monetary value.

Balanced Budget – A budget is considered balanced when budgeted revenues equal or exceed budgeted expenditures.

CAFR – abbreviation for Comprehensive Annual Financial Report. The CAFR expands upon full GAAP financial statements by including a large amount of statistical information applicable to the municipality.

Capital assets – any tangible or intangible asset that has an initial useful life extending beyond a single reporting period. Assets such as land, easements, buildings, building improvements, vehicles, machinery, equipment, infrastructure, works of art or of historical significance are normally capital assets.

Capital Expenditures – Money expended to purchase capital assets.

Comprehensive Annual Financial Report – The official financial report of a municipal entity. It includes management's discussion and analysis, financial statements, supporting schedules and required supplementary information and statistics on the municipality.

DDB – “DDB” is an abbreviation for Dry Detention Basin. A dry detention basins' outlets have been designed to detain storm water runoff for a minimum period of time (ie. Usually 24 hours) to allow particles and pollutants to settle. Unlike wet ponds, they do not have a permanent pool of water.

Debt Limit – The State-set maximum amount of legally permitted outstanding net debt.

Delaware Valley Insurance Trust (DVIT) – A regional risk sharing pool providing property, liability and/or health coverage to its participating members which consists of municipalities in Southeastern Pennsylvania. The Trust was formed under the authority granted by the Pennsylvania Intergovernmental Cooperation Act and the Pennsylvania Political Subdivision Tort Claims Act.

The Township currently has all of its insurance coverage through DVIT.

Effluent – The outflow from a sewage treatment facility.

GLOSSARY, cont'd

Enterprise Funds – Proprietary fund type used to report an activity for which a fee is charted to external users for goods or services.

Fund – A fiscal and accounting tool with a self-balancing set of accounts to record revenues and expenditures.

Fund Balance – Fund balance is the net position of a governmental fund. It is equal to the difference between assets, liabilities, deferred outflows of resources and deferred inflows of resources. It is the “equity” of a governmental fund.

GAAP - GAAP is an abbreviation for Generally Accepted Accounting Principles which are the standard framework and guidelines used in financial accounting in the United States of America. The Financial Accounting Standards Board is responsible for issuing new accounting pronouncements.

GASB - GASB is an abbreviation for The Government Accounting Standards Board. GASB is the authoritative accounting and financial reporting standard –setting body for state and local governments.

General Fund - An accounting entity used to account for all revenue and expenditures applicable to the general operations of the departments of the Township, and to record all financial transactions not accounted for in another fund.

GFOA – GFOA is the abbreviation for The Government Finance Officers Association. The GFOA is a national professional organization comprised of people who are working in government finance on a state, local or federal level. The GFOA holds educational training seminars nationally and also provides information on “Best Practices”, as well as other services, to its members. State and local chapters provide local training on a monthly, quarterly or annual basis.

Impervious Coverage - Impervious coverage refers to any man-made surfaces, along with compacted soil, that water cannot penetrate. Examples, are asphalt, concrete, and rooftops.

LUAR – is the abbreviation for a Land Use Assumptions Report.

Modified Accrual Basis of Accounting – an accounting method that combines elements of the two basic accounting methods, cash basis and accrual basis. Revenues are recognized when earned, measurable and available. Expenses are recognized when the liability is incurred.

GLOSSARY, cont'd

MS-4 – Under the 1987 Clean Water Act Amendments, the U.S. EPA developed new regulations to address storm water that might impact water quality. These new “Municipal Separate Storm Sewer System” (MS4) regulations were established by the EPA and are administered in Pennsylvania by the Pennsylvania Department of Environmental Protection (“DEP” or “PADEP”).

NPDES permit – National Pollutant Discharge Elimination System permit. Permits are issued by PADEP.

PADEP – Pennsylvania Department of Environmental Protection

PEMA – Pennsylvania Emergency Management Agency

Scheduled interest - is the amount of interest that would be paid by following the bank's amortization schedule. If the Township pays additional principal amounts during the remaining years of the loan, the actual amount of interest paid will be less.

Second Class Township – a second class township is defined as having a population of less than 300 inhabitants per square mile and in Pennsylvania they are governed by the Second Class Township Code, enacted by the state legislature on May 1, 1933, as amended.

WWTF – Waste Water Treatment facility



December 15, 2018

Upper Uwchlan Township Municipal Authority
140 Pottstown Pike
Chester Springs, PA 19425

RE: Report for the December meeting.

Dear Authority,

Enclosed you will find copies of the monthly reports that were submitted to the DEP on your behalf. The reports are for October. Information items are current

Route 100

Disposal continues as able. November was still a fairly wet month. The storage lagoon is nearly at low level. I had Predoc install stainless steel chain on the pumps at Ewing West Vincent influent station. These replace a corroded steel cable. The station at Windsor Ridge was cleaned. During cleaning the transducer and a float became damaged. Predoc was called to repair.

Eaglepoint

Plant is running well. Flows have dropped a bit recently. However, I feel we will still have loading issues to explain in this years Chapter 94 report.

St. Andrews Brae

Plant continues to run well. I ordered a received a spare motor for inventory. There were no operational issues to report.

Marsh Harbour

The plant is running fine. We continue to spray as conditions allow. The lagoon level here is just ok for now. I really could use a few weeks of moderate rain free weather to fully lower.

Saybrooke

Plant continues to operate fine. There were no operational issues to report.

Clean Water, Inc. Wastewater Treatment Specialists

Lakeridge

Plant is running fine. We had a precon meeting for the new sludge tank install. Inks was called to do some clean up.

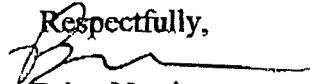
Greenridge

Drip has continued. I would like to get the field cut here once more and allowed to remain as an insulator of sorts for the drip field.

Additional Information

All of the flow meters were calibrated by WG Malden.

That is all for now, please call with any questions. Have a Merry Christmas!!

Respectfully,

Brian Norris



350 West Main Street
Suite 200
Trappe, PA 19426
T 610.495.0303
F 610.495.5855

MEMORANDUM

TO: Upper Uwchlan Township Municipal Authority

FROM: G. Matthew Brown, P.E., DEE

RE: Project Status Report

PROJECT NO.: 17000.00

DATE: December 12, 2018

The following is the status of current wastewater projects within the Township:

Byers Station

Village at Byers Station (5C), Lot #1 Townhouse Parcel: At Byers Station Lot 5C ARRO is providing assistance to Toll with regards to capacity needs in determining sanitary sewer flow estimation for various potential building uses. ARRO is reviewing the Village at Byers Station (5C) sanitary sewer system package prepared by Bohler Engineering for Executive Land Holdings, LP. ARRO will be submitting review comments to the Township. ARRO completed its review of the Village at Byers Station (5C) sanitary sewer system package and submitted review comments to the Township. Revised Village at Byers Station (5C) sanitary sewer plans, dated September 12, 2016, was submitted to ARRO for review. ARRO completed its review of the plans and will issue a review comments letter to the Township by September 23, 2016. ARRO reviewed a Sewage Facilities Planning Module exemption package for The Village at Byers Station (5C). The package was signed and returned to the Township for forwarding to the Developer's engineer who will submit the package to PADEP. ARRO reviewed the full Village at Byers Station (5C) Planning Module package and returned it to the Township. The Township forwarded Components 4B and 4C to the Chester County Board of Health and Chester County Planning Commission for completion. ARRO issued a May 5, 2017 review letter to the Township with comments to the March 17, 2017 Subdivision and Amended Final PRD Plans for the Parcel 5C project. PADEP issued a June 9, 2017 Administrative Incompleteness review letter listing three items missing from the Sewage Facilities Planning Module submission. ARRO is assisting the Developer with responses to PADEP comments. PADEP issued a July 7, 2017 Administrative Incompleteness review letter for the Parcel 5C project listing one item regarding the sanitary sewer capacity. ARRO is assisting the Developer with a response to the PADEP comment. PADEP issued an August 3, 2017 letter approving the Official Plan revision for the 121 townhouses on Parcel 5C. ARRO reviewed the latest revision to the Land Development drawings and transmitted comments to Toll's engineer regarding showing the force main piping within the Station Boulevard sanitary easement. The Village at Byers Station (Parcel 5C) pre-construction meeting was held on October 18, 2017. Construction is expected to start within three weeks. The Village at Byers Station (Parcel 5C) site contractor, by email dated November 14, 2017, started submitting its sanitary sewer shop drawing submittals. ARRO reviewed and commented on the submittals. Brubacher Excavating started sanitary sewer installation work on January 4, 2018. The Village of Byers Station (5C) sanitary sewer installation work

continues through February 2018, approximately 40% of the sewer mains and laterals have been installed. Sanitary sewer installation work continues through March 2018. As of mid-April 2018 all sanitary sewer mains and laterals have been installed and air tested, while 75 percent of the sewer mains have also passed deflection testing. As of mid-May 2018 all sanitary sewer mains have passed pressure and deflection testing and only manhole vacuum testing remains to be done after base paving is completed. Vacuum testing of each sanitary sewer manhole on the site was completed on July 11, 2018. ARRO approved escrow release No. 1 in the amount of \$302,330.01 by letter dated September 6, 2018. Installation of the gravity house service line to each new townhouse began on September 13, 2018. ARRO reviewed the sanitary sewer videos submitted by Toll Brothers on October 19, 2018. The pipe is in good condition with only minor debris in a few runs that need to be flushed and cleaned. ARRO emailed Toll Brothers on November 2, 2018 with a list of the runs that needed cleaned.

Installation of the gravity house service line to each new townhouse is continuing.

Village at Byers Station (5C), Lot #2 Commercial Parcel: ARRO reviewed the Village of Byers Station (5C) – Lot #2 Commercial Parcel's Sewage Facilities Planning Module (SFPM) package. The Developer's engineer submitted a 9,025 gpd sanitary sewer capacity request at the Route 100 WWTP facility. ARRO reviewed the Amended Final PRD Plans submitted by Bohler Engineering and prepared a February 27, 2018 letter to the Township with comments to the Plans. Sewage Facilities Planning Modules were sent to PADEP on April 18, 2018. ARRO reviewed Amended Final PRD Plans, last revised May 7, 2018, and submitted a May 30, 2018 letter to the Township containing comments to the Plans. Additional revised Plans were submitted on July 12, 2018 and are currently under review. The PADEP SFPM approval letter, dated June 27, 2018, was received by the Township. Vacuum testing of each sanitary sewer manhole on the site was completed on July 11, 2018. By email dated July 4, 2018, ARRO requested of Toll Brothers that they submit an agreement document between Toll and BPG Partners, Ltd. stipulating that after BPG has the binder course paving completed each manhole will again be vacuum tested and BPG will repair any manhole that fails its vacuum re-test. ARRO submitted a July 19, 2018 sanitary sewer comments letter to the Township regarding the additional revised Plans submitted by Bohler Engineering on July 12, 2018. Toll Brothers submitted a July 30, 2018 letter acknowledging it will be responsible to ensure that the sanitary manholes in 5C Commercial will be tested after construction of the commercial portion of the subdivision. Toll requests the Authority require the testing to be a component of the financial security agreement as it relates to the commercial site work. ARRO prepared an August 31, 2018 letter to the Township with comments to the latest Final PRD Plans, last revised August 30, 2018. Eight buildings with various uses are proposed with a sewer capacity of 9,025 gallons per day.

Nothing new to report.

Byers Station (6C), Vantage Point–Chester Springs: The Developer's engineer submitted a request for 43 EDUs (9,500 gpd) of sanitary sewer capacity at the Route 100 WWTP facility. The Authority Administrator sent a February 20, 2018 letter to D. L. Howell stating there is sufficient capacity at the Route 100 WWTP facility for the proposed 9500 gpd from the project. ARRO reviewed the project's Sewage Facilities Planning Module (SFPM). The module shows a request for 45 EDUs (10,000 gpd) of sanitary sewer capacity. SFPM Component 3 Section G and J were signed. The Pennsylvania Historical and Museum Commission clearance letter and Aqua water service letter have been received for the Sewage Facilities Planning Module (SFPM). On April 18, 2018, the Township forwarded SFPM Components 4B and 4C to the Chester County Planning Commission and Health Department. ARRO reviewed Land Development Plans, plotted April 6, 2018, and submitted an April 30, 2018 letter to the Township containing comments to the Plans. The SFPM is complete and a resolution to accept the document was placed on the Board of Supervisors' August 20, 2018 agenda. The

SFPM application package was submitted to PADEP. ARRO prepared a September 6, 2018 sanitary sewer review letter to the latest Land Development Plans submitted by D.L. Howell, last revised August 13, 2018.

ARRO received on December 5, 2018 the latest Land Development Plans, last revised November 30. ARRO will submit a sanitary sewer review letter the week of December 10.

Eagle Hunt

ARRO has started preparing contract documents for recommended repairs to the Eagle Hunt effluent storage tank as contained in the August 2016 tank inspection report. ARRO conducted a site visit with Dutchland to review and discuss proposed tank repairs. ARRO is in the process of generating contract drawings and specifications for the proposed tank repairs. ARRO is completing Effluent Storage Tank Repair bid documents for bidding by the end of October 2018. ARRO completed the Effluent Storage Tank Repair bid documents. The project will be put out to bid the week of November 26, 2018.

ARRO placed the Effluent Storage Tank Repair project on PennBid on December 7, 2018. Bids are due January 10, 2019.

Eaglepointe

Wastewater Treatment Plant and Sanitary Sewer System: ARRO prepared plans and specifications for a new chain-link fencing around the wastewater treatment plant. Bids for new fencing at the Eaglepointe WWTP were received on June 22, 2018. ARRO prepared a June 25, 2018 recommendation to award letter to the Township. A notice to proceed has been issued to ProMax Fencing and ARRO is waiting for ProMax to submit its contract documents. The fencing pre-construction meeting was held on August 3, 2018. Chain-link privacy fencing installation work is to begin after the completion of fencing at the Lakeridge WWTP. Trees and brush have been removed and the chain-link fence and gate were installed as of October 12, 2018. Chain-link fencing installation work is complete.

Eaglepointe sanitary sewer easement survey was authorized to proceed on December 15, 2017. The surveyor will prepare plot plans and legal descriptions for all easements encompassing gravity sanitary sewer at the subdivision. ARRO received and returned comments to the surveyor's preliminary easement plans on April 23, 2018. On November 7, 2018, ARRO received and reviewed the final plot plans and legal descriptions for all the easements encompassing the gravity sewer. The plans and description have been found to be acceptable.

ARRO is working on a plan for the decommissioning of the Eaglepointe WWTP.

Fencing installation project closeout paperwork is in progress.

ARRO continues working on a plan for the decommissioning of the Eaglepointe WWTP.

ARRO is reviewing a request for additional wastewater disposal to the Eaglepointe WWTP from a current tenant in the J. Loew building onsite.

CarSense: ARRO received a telephone call from CarSense's engineer regarding a request to include additional flow to the sanitary sewer system from a proposed carwash facility. ARRO is awaiting a formal written request of the proposal. ARRO received a written request from CarSense's engineer to introduce additional flow from a proposed carwash facility into the Eaglepointe sanitary sewer system. ARRO responded that the estimated 2,208 gallon flow from CarSense would be acceptable provided an oil/water separator and a sampling facility be installed. CarSense's engineer expects to have sewer plans and planning module application materials for submission to the Township within two weeks. ARRO reviewed the CarSense sewer plans and planning module application materials and transmitted comments to each to

CarSense's engineer by letter dated September 20, 2017. ARRO reviewed the CarSense engineer's latest revised sewer plans. ARRO prepared a November 28, 2017 letter accepting the latest revised sewer plans. CarSense has secured a general contractor for the sanitary sewer work. ARRO is assisting the contractor regarding the contractor's submission of shop drawings for the project. ARRO reviewed and approved the sanitary sewer shop drawings. The project preconstruction meeting was held on April 10, 2018. Onsite sanitary sewer installation began in mid-April 2018. Onsite sanitary sewer installation is complete and tested. Wastewater flow from CarSense to the Eaglepointe WWTP started June 1, 2018.

Clean Water had a July 25, 2018 sample of CarSense effluent analyzed. Some individual chemistry substances exceeded the Non-Residential Waste Resolution limits. The Authority Administrator, Clean Water and ARRO will meet with CarSense on August 28, 2018 to discuss ways to lower the substances exceedances.

Nothing new to report.

Liberty Union Bar & Grille: Liberty Union effluent was tested and BOD, fat & oil and nitrogen results were found to be higher than the Non-Residential Waste Discharge (NRWD) resolution limits. A November 13, 2017 letter was sent to Liberty Union advising them of their discharge overages and the need to meet with the Authority Administrator, Clean Water and ARRO to discuss how Liberty Union could lower the three elevated discharges. The meeting will take place on November 30, 2017. The Authority Administrator, Clean Water and ARRO met with Liberty Union on November 30, 2017 to discuss how to lower the three elevated discharges. Liberty Union stated they will institute existing grease trap cleaning reforms and update their dish cleaning policy. Clean Water will take additional samples periodically to check the reforms. Clean Water conducted a grab sampling of Liberty Union discharges on January 31, 2018. Sampling test results for Phosphorus, BOD and Oil/Grease continue to be above the Authority's NRWD resolution limits. ARRO had a telephone discussion with Liberty Union on February 23, 2018 about high sampling results. Liberty Union requested a third sampling as a composite sample like the first sampling. The Authority Administrator authorized Clean Water to set up the new composite sampling, which was done over February 19 and 20. A lab error occurred with the sample collected on March 29, 2018. The lab scheduled another sampler collection for April 5 into April 6, 2018. ARRO has not received the latest sampling test results. ARRO transmitted the April 6, 2018 test results to Liberty Union. ARRO is preparing comments to Liberty Union questions on the test results. ARRO prepared comments to Liberty Union questions on the test results. Ten random grab samples for analysis will be taken from the Liberty Union pump station wetwell. Two grab samples have been analyzed and BOD exceeds 1000 mg/L in both samples. The results of two grab samples (collected September 25 and 27) were received and the BOD is below 500 mg/L in both. The results of seven grab samples collected between September 5 and October 10, 2018 all had BOD above the NRWD maximum 250 mg/L threshold, the highest result was 1,700 mg/L.

ARRO is in the process of updating the Non-Residential Waste Discharge resolution.

Dilibero - Go-Wireless, Eagle Car Wash and Enterprise Rent-A-Car Sanitary Sewer Connection: ARRO is conducting an evaluation of the wastewater treatment capacity and feasibility for connecting these three businesses to the Eaglepointe WWTP sanitary sewer system. ARRO completed the evaluation, including a piping layout and cost estimate, and it is now under internal review. ARRO transmitted its sanitary sewer evaluation to Dilibero on April 20, 2018. ARRO has been responding to sanitary sewer related questions from Dilibero's sewer contractor.

Nothing new to report.

Ewing Tract

Toll Brothers and Lennar started installing house service lines to new homes in Ewing Tract – West Vincent Township February 2016. ARRO is observing installation and testing of the house service lines. All sanitary sewer house service lines at Toll Brothers' Ewing Tract - West Vincent Carriage Home South subdivision are complete and tested as of June 22, 2017.

Toll Brothers submitted to ARRO for review the preliminary maintenance bond amounts for the Ewing Tract – West Vincent Phase 1/2A, Ewing Tract – West Vincent Phase 2A, and Ewing Tract - West Vincent Phase 2 – Carriage Home South projects. ARRO prepared a February 22, 2018 letter to the Township approving the maintenance bond amounts submitted by Toll Brothers for the Ewing Tract – West Vincent Phase 1/2A, Ewing Tract – West Vincent Phase 2A, and Ewing Tract - West Vincent Phase 2 – Carriage Home South projects.

The Authority Administrator prepared and sent a March 16, 2018 letter to the Home Owners Associations at Byers Station, Ewing-WVT and Reserve at Eagle warning residents not to ice skate on the frozen water surface of each effluent storage lagoon.

ARRO prepared a June 13, 2018 memo to the Authority Administrator with findings regarding proposed residential recreational trails near existing Ewing Tract – West Vincent spray field sites. ARRO had its surveyor prepare plans and legal descriptions for the paved walking trail easements through Ewing Tract – West Vincent Spray Fields #2, #3 and #5. The plans and descriptions were transmitted to Toll Brothers on October 23, 2018.

On June 20, 2018 ARRO requested Toll Brothers submit Descriptions of Property for all Ewing Tract – West Vincent sanitary sewer easements, spray fields and the spray pump station and lagoon. Toll Brothers submitted easement documents by email on July 9, 2018. ARRO reviewed the documents and sent Toll Brothers comments to the documents by email dated July 13, 2018. Descriptions of Property for all Ewing Tract – West Vincent sanitary sewer easements, spray fields and the spray pump station and lagoon were submitted by Toll Brothers and reviewed by ARRO. ARRO sent an August 23, 2018 email to Toll that all descriptions are acceptable.

On November 13, 2018 Toll Brothers submitted the Maintenance Security Agreement and Maintenance Bond for Ewing Tract – West Vincent Phase 2A Sanitary Sewer Improvements. ARRO reviewed the documents and sent comments to Toll Brothers on November 14, 2018.

Toll Brothers started construction of the Sunderland Avenue East roadway connecting Eagle Farms Road to Rainer Road in Ewing Tract – West Vincent. On November 8, 2018 ARRO made a request to Toll Brothers to install the 3" PVC Spray Distribution force main beneath the roadway as shown on the original land development plans.

Toll Brothers and Lennar are continuing to install house service lines to new homes in Ewing Tract – West Vincent Township with ARRO observing the completed installations and the testing of the house service lines. ARRO testing reports are being sent to West Vincent Township's engineer, Cedarville Engineering Group, LLC.

ARRO reviewed and commented on both the December 3, 2018 update of the Maintenance Security Agreement and reviewed and Eagle Farms Road as-built plans received from Toll Brothers for Ewing Tract – West Vincent Phase 2A. The comments revisions were made and ARRO has approved both documents.

ARRO received from Toll Brothers, on December 5, 2018, Phase 2 Ewing Tract – West Vincent documents concerning (1) Maintenance Service Agreement for Carriage Home South, (2) Grant of Sanitary Sewer Easements and Dedication of Facilities for Butternut Lane and Rainer Road, (3) Deed of Dedication for Future Spray Field #4, (4) Grant of Sanitary Sewer Easements and Dedication of Facilities for Lots 327 and 343, and (5) Grant of Access Easements for Lot 335. ARRO is in the process of reviewing the documents.

Fetter Farm Tract (McKee)

ARRO received a request from a developer engineer for information on available treatment capacity to serve the Tract and met with the Township Manager and developer engineer on September 18, 2012, to discuss treatment capacity and conveyance to the Route 100 WWTP. On August 5, 2014 a meeting was held at the Township Building with The McKee Group to discuss the active adult community proposed by the Developer for the property. A subsequent meeting was held at the Township Building on August 14, 2014 with the Township, Developer and Authority Administrator to discuss sewage flows and disposal. ARRO reviewed a Conditional Use Plan for Fetter's Property prepared for McKee-Millford Associates, LP, dated October 12, 2016. ARRO prepared a review letter to the Township, dated November 8, 2016. The Developer is proposing 375 Housing Units, which will produce 62,675 gallons per day of sanitary sewer flow. The Developer is proposing participation in upgrades to the Route 100 Regional WWTP facility that will trigger the Phase 3 expansion of the WWTP. A review of the capacity within the downstream collection and conveyance system is required to determine the extent of improvements necessary to accept the proposed sewage flow. Preliminary Subdivision/Land Development Plans were submitted to ARRO and are currently under review. The Plans call for 375 mixed Single Family, Twin and Triple units and a Community Center to be built in the subdivision. The subdivision will connect to the Reserve at Eagle by way of Prescott Drive and to the Reserve at Chester Springs by way of Radek Court. The sanitary sewer disposal requirements are calculated to be 62,675 gpd. On-site drip disposal capacity is calculated to be 42,643 gpd, and the off-site sewage disposal requirement is 20,032 gpd. The combination gravity and low pressure sanitary sewer systems will be directed to the Reserve at Eagle Pump Station No. 1 off Prescott Drive. Preliminary Subdivision/Land Development Plans were submitted and reviewed by ARRO. ARRO comments were submitted in an April 10, 2017 letter to the Township. ARRO is in the process of reviewing the June 15, 2017 resubmission of the Preliminary Subdivision/Land Development Application. ARRO reviewed the June 15, 2017 resubmission of the Preliminary Subdivision/Land Development Plan and submitted comments to the plan in a July 10, 2017 letter to the Township. ARRO also reviewed the subdivision's low pressure sewer system design calculations and submitted comments to the design in a July 12, 2017 letter to the Township. ARRO reviewed an August 1, 2017 revision to the low pressure sewer system design calculations and drawings and submitted an August 16, 2017 letter to the Township with comments to the revision materials. ARRO has started an evaluation of the Reserve at Eagle Pump Station No. 1 to ascertain its capability to accept the Fetter Tract design sanitary sewer disposal requirements. ARRO received revised Preliminary Subdivision/Land Development Plans on September 14, 2017. ARRO reviewed the Plans and sent an October 3, 2017 review comments letter to the Township. ARRO continues an evaluation of the Reserve at Eagle Pump Station No. 1 to ascertain its capability to accept the Fetter Tract design sanitary sewer disposal requirements. The evaluation is substantially complete with the exception of emergency generator assessment. ARRO continues an evaluation of Upland Farms drip disposal to ascertain the facility's capability to store and dispose the Fetter Tract effluent. ARRO reviewed the Sewage Facilities Planning Module (SFPM) and is working on the sanitary sewer review. The Authority Administrator signed the SFPM Component 3 Sections G and J. The Board of Supervisors approved the SFPM resolution at the April 16, 2018 meeting. The developer's engineer stated in an April 17 email to the Authority Administrator that the SFMP is close to being submitted to PADEP for review. The Sewage Facilities Planning Module was sent to PADEP on April 18, 2018. Ebert Engineering requested Authority assistance in preparation of a response to comments received from PADEP on the Sewage Facilities Planning Module. ARRO is working on a response. ARRO assisted Ebert Engineering in preparation of letter responses to comments received from PADEP to the Sewage Facilities Planning Module. ARRO transmitted its responses to Ebert Engineering on November 1, 2018.

ARRO in association with Ebert Engineering prepared a December 13, 2018 letter to PADEP in response to PADEP Sewage Facilities Planning Module comments.

Frame Property (Reserve at Chester Springs)

ARRO reviewed the sanitary sewer portion of the latest Final Subdivision/Land Development Plan and sent a January 14, 2016 letter to the Township stating all previous comments were addressed and recommending approval of the Plan. PADEP sent a March 18, 2016 letter to the Township with the approval of the Official Plan revision for the 61-unit Frame Property. ARRO reviewed the sanitary sewer escrow quantities prepared by Toll Brothers for Frame Property and found it acceptable. ARRO prepared a May 11, 2016 recommendation letter that was sent to the Township. Toll Brothers informed ARRO that they were hoping to settle on the property shortly and start construction in July. ARRO is preparing the Little Conestoga Road HOP for Toll. ARRO prepared and submitted to PennDOT the Little Conestoga Road HOP for Toll Brothers. Toll said PennDOT must issue the HOP before settlement on the property can take place. The pre-construction meeting for the Reserve at Chester Springs (Frame Property) subdivision was held on August 4, 2016. ARRO reviewed shop drawings of sanitary sewer items. The site work is underway. ARRO has been informed by the contractor that sanitary sewer installation is expected to start at the beginning of October 2016. ARRO was informed by Toll Brothers that the sanitary sewer installation will start on Monday, October 24, 2016. Sanitary sewer installation started in Little Conestoga Road on Monday, October 24, 2016 with the tie-in to a manhole immediately upstream of the Little Conestoga Pump Station. Sewer installation in Little Conestoga Road is complete and is now proceeding within the subdivision. ARRO reviewed Toll Brothers' Reserve at Chester Springs Escrow Release #2 request and prepared a recommendation letter to release \$135,160.56. All sanitary sewer piping is installed and testing is underway. The first house service line is being installed the week of February 13, 2017. ARRO is working with Toll Brothers to obtain an easement within the subdivision for ARRO –designed sanitary sewer to serve three (3) Phase II Collection System properties. ARRO is having survey completed of the easement and for design of sewer for the three properties. The easement survey was completed and the Authority solicitor is preparing a Deed of Dedication for Sewer Easement. ARRO reviewed Toll Brothers' Reserve at Chester Springs Escrow Release #3 request and prepared a recommendation letter to release \$91,727.23. The Authority solicitor prepared a Deed of Dedication for the sewer easement to connect Phase II Collection System properties to the Reserve at Chester Springs. The Deed was transmitted to Toll Brothers for review. ARRO prepared a change order to the contractor, MG Property Management, to install 6-inch sanitary sewer and a manhole within the Reserve at Chester Springs Tot Lot for the future connection of Phase II Collection System properties. All sanitary sewer pipe testing is complete and manhole testing is underway. All sanitary sewer manhole testing is complete. MG Property Management installed the 6-inch sanitary sewer and a manhole within the Reserve at Chester Springs Tot Lot for the future connection of Phase II Collection System properties, but cannot complete its work until the Developer's contractor restores an open utility trench near the work area. ARRO prepared closeout documents for the MG Property Management project. MG Property Management completed its sanitary sewer work within the Tot Lot and will submit closeout documents for the project during the week of August 20, 2017.

Installation of the gravity house service line to each new home is continuing.

Greenridge

On August 1, 2017 a meeting with the Developer was held at the Township to discuss the sanitary sewer options for the redevelopment of the former Upattinas School parcel (Open Community Adaptive Reuse Development). ARRO is reviewing a revised Section H of the Sewage Facilities Planning Module submitted by the Developer on August 8, 2017. ARRO reviewed a revised Sewage Facilities Planning Module Section H submitted by the Open Community Developer. The Sewage Facilities Planning Module (SFFPM) now includes the revised Section H, and the Component 4 submissions have been forwarded to Chester County's

Planning Commission and Heath Department. ARRO conducted a site visit to a property which utilizes an Ecoflow unit similar to that proposed for on-site wastewater pre-treatment at the Open Community project. Chester County Planning Commission and Heath Department returned the Open Community Components 4A, 4B and 4C. Component 3 Sections G and J were completed. The Township authorized sending the SFPM package to PADEP for review. The Authority Administrator prepared a March 14, 2018 letter to Warwick Land Development stating the Authority continues to lack sufficient information from Warwick before the Authority could agree to operate the pretreatment facility proposed for the Open Community Adaptive Reuse Development. On behalf of the Open Community Developer, on November 13, 2018 Boucher & James submitted sewer connection plans for review. ARRO is in the process of reviewing the plans and will issue comments in a separate letter.

ARRO met with the 403 Greenridge Road property owner and his contractor on April 30, 2018 regarding the proposed installation of a sanitary sewer grinder pump to connect to the Stonehedge force main that runs to the Greenridge WWTP sanitary sewer system. ARRO reviewed the 403 Greenridge Road Public Sewer Connection Plan prepared by Evans Mill Environmental for a sanitary sewer grinder pump to connect to the Stonehedge force main. The Plan was approved on June 20, 2018.

ARRO is working on a capacity analysis of the wastewater treatment plant.

ARRO completed its review of the November 13, 2018 Boucher & James sewer connection plans and issued a November 28, 2018 comments letter to the Township. Subsequently, Boucher & James submitted to ARRO a response email on December 3, 2018 along with revised plans, last dated December 3, 2018. ARRO is reviewing the email responses and the latest revised plans.

Jankowski

The Preliminary Plan/Conditional Use Application was submitted to the Township and ARRO provided comments on the sanitary sewer system. ARRO met with The Cutler Group on December 10, 2008 to discuss ARRO's Preliminary Plan/Conditional Use Application review comments. The Cutler Group advised that it was able to locate suitable soils to provide sufficient disposal capacity for both its development needs and the Township's required disposal capacity. ARRO reviewed the soils report and issued a letter to the Township agreeing that sufficient capacity appears to exist, although actual capacity will need to be verified through an as-built survey. ARRO provided comments on a draft preliminary subdivision plan addressing the Township Engineer's June 2008 review letter. The Cutler Group subsequently requested an informal review of the revised plans and ARRO provided unofficial comments so that The Cutler Group may further refine the draft preliminary plan in anticipation of its official submission to the Township. ARRO studied the feasibility of connecting the 60 Jankowski homes to the Saybrooke WWTP system. ARRO found that the Saybrooke WWTP does not have the capacity to treat the additional 14,000 gpd and Pump Station No. 2 does not have sufficient capacity. Also, the land parcel does not have sufficient footprint to support an upgrade to the WWTP. ARRO studied expanding the Saybrooke seepage beds and adding drip facilities. ARRO intends to review PADEP records regarding original Saybrooke seepage bed and soil design parameters. On July 22, 2014, ARRO reviewed PADEP records regarding the original Saybrooke seepage bed and soil design parameters, which confirmed ARRO's initial assumptions, and it appears that all effluent can be disposed on the existing lot if four absorption beds and a drip irrigation system are utilized. ARRO is creating an opinion of probable construction cost for expanding the absorption beds. ARRO has prepared its initial opinion of probable construction cost for expanding the absorption beds. ARRO was in the process of creating an opinion of probable construction cost for the drip irrigation system, but can't obtain final design parameters from PADEP unless onsite soil testing is done to determine soil percolation rates. ARRO issued a May 5, 2017 review letter to the Township with

comments to the September 13, 2016 Conditional Use Plan for the Jankowski Tract. On February 2, 2018, the Developer's engineer submitted for review subdivision plans of a 55 Single Family Housing unit community. ARRO is working on a review of the sanitary sewer portion of the subdivision plans. ARRO completed its review of the Preliminary/Final Subdivision-Land Development Plan submitted by E. B. Walsh and prepared a February 26, 2018 letter to the Township with comments to the Plans. ARRO responded to Toll Brothers regarding the Windsor Ridge Pump Station capacity to receive Jankowski estimated sanitary flow. ARRO reviewed the Preliminary/Final Subdivision-Land Development Plan, last revised May 18, 2018, and prepared June 11, 2018 comments to the Township. Sewage Facilities Planning Module Components 4A, 4B and 4C were received. Presently the project is in the 30-day Public Notice periods, which upon completion the Township can submit the components to PADEP. The Authority Administrator sent an August 14, 2018 letter to Chester County Health Department (CCHD) regarding CCHD's Component 4C comment about malfunctions along Surrey Lane, Font Road and Carriage Drive. The Administrator stated the Authority will be evaluating future extensions in these areas. Subsequently, ARRO conducted a small conceptual planning study to sewer these areas. ARRO presented three sewer extension options and cost opinions to the Authority Administrator for review and comment. The first gravity and low pressure sewer concept sends all flow through the Jankowski tract, the second all gravity sewer concept sends some flow through Jankowski and the remainder to Reserve at Eagle, while the third all gravity sewer concept sends all flow to the Reserve at Eagle. ARRO is reviewing the latest Preliminary/Final Subdivision-Land Development Plan transmitted by E.B. Walsh letter, dated August 10, 2018. SFPM Components 4A, 4B and 4C were received, but the bog turtle clearance letter from PA Fish & Wildlife is still outstanding. The UUT Board of Supervisors authorized the resolution needed for the Sewage Facilities Planning Module at their October 15, 2018 meeting but are holding it until the clearance letter is issued. ARRO prepared an August 30, 2018 sanitary sewer review letter to the latest Preliminary/Final Subdivision-Land Development Plan transmitted by E.B. Walsh letter, dated August 10, 2018.

Nothing new to report.

Lakeridge

ARRO has prepared plans and specifications for fencing around the WWTP's sand mounds. Bids for new fencing around the Lakeridge WWTP disposal fields were received on June 22, 2018. ARRO prepared a June 25, 2018 recommendation to award letter to the Township. A notice to proceed has been issued to ProMax Fencing and ARRO is waiting for ProMax to submit its contract drawings. The fencing pre-construction meeting was held on August 3, 2018. Submittals for vinyl fencing were approved and ordered. Fencing installation work is to begin on August 27, 2018. Fencing installation work around the disposal beds is complete.

ARRO is preparing plans and specifications for construction of a sludge tank exterior to the WWTP Control Building. ARRO conducted an inspection of the Lakeridge WWTP Control Building in order to prepare maintenance and repair items for inclusion in the sludge tank construction contract. ARRO is continuing to prepare the sludge tank and building repairs plans and specifications. ARRO has both the sludge tank plans and specifications and the PADEP Part 2 permit application approximately 80 percent complete. ARRO has completed the sludge tank plans and specifications. The Part 2 permit application is expected to be submitted to PADEP by the end of May 2018. Changes to sludge tank design plans were necessary due to updated Columbia Gas easement information. ARRO submitted the Part 2 permit application to PADEP on July 17, 2018. PADEP sent an August 14, 2018 Water Quality Management permit for the sludge tank project. The bidding phase of the work is now in progress. The Sludge Tank Relocation project was put out to bid on September 4, 2018. A pre-bid meeting for the project is scheduled for September 20, 2018. Bids are due October 18, 2018. ARRO plans to have a bid award recommendation prepared for the October 23, 2018 Authority meeting. Bids for the

Sludge Tank Relocation project were received on October 18, 2018 and reviewed by ARRO. ARRO recommended award of the General Contract to Blooming Glen Contractors and the Electrical Contract to Eastern Environmental Contractors. Agreements were delivered to the Township on November 19, 2018 for execution by the Authority at its November Board meeting.

ARRO prepared and sent to Clean Water on June 12, 2018 the 5-Year Groundwater Monitoring Geotechnical Comprehensive Report for inclusion in Clean Water's Lakeridge WWTP WQM permit renewal package submission to PADEP.

ARRO conducted the Sludge Tank Relocation project pre-construction meeting on December 10, 2018.

Fencing installation project closeout paperwork is in progress.

Marsh Harbour

ARRO prepared plans and specifications for miscellaneous repairs to the Marsh Harbour WWTP control building. ARRO has completed specifications and an opinion of probable cost for the wastewater treatment plant's Control Building exterior repairs and the project is ready to be put out to bid. A proposal of \$16,840 was received from Pikeland Construction for replacing the Control Building roofing, soffit, fascia, gutters and siding, and also repairing a deteriorated Chlorine Room exterior door frame.

ARRO is continuing its evaluation of the Marsh Harbour WWTP access road and its stormwater requirements. ARRO completed its evaluation of the access road and stormwater requirements and submitted the evaluation to the Authority Administrator.

The Control Building roofing, soffit, fascia, and gutters work is tentatively scheduled to begin on December 17, 2018.

Reserve at Eagle

ARRO prepared plans and specifications for lagoon and spray field fencing. Bids for new fencing at the Reserve at Eagle storage lagoon were received on June 22, 2018. ARRO prepared a June 25, 2018 recommendation to award letter to the Township. A notice to proceed has been issued to ProMax Fencing and ARRO is waiting for ProMax to submit its contract drawings. The fencing pre-construction meeting was held on August 3, 2018. Submittals for vinyl fencing were approved and ordered. Fencing installation work is 30% complete. Fencing installation work is complete.

Fencing installation project closeout paperwork is in progress.

Route 100 WWTP

ARRO conducted a study to search for new disposal sites within and near the Township. Mapping was developed for the study and ARRO conducted a preliminary assessment of a potential stream discharge for the WWTP. ARRO presented its findings regarding potential disposal sites at the December 2016 Board meeting. ARRO has prepared a draft of the Route 100 Regional WWTP disposal fields study for the potential to rerate the fields for additional capacity. ARRO engaged a sub-consultant to review the existing disposal field design records, the Route 100 WWTP SBR discharge limits and ARRO study findings. ARRO received the sub-consultant's report and is reviewing the findings. ARRO prepared a revised Route 100 Regional WWTP allocated treatment and disposal capacity summary. Based on an ARRO search and mapping study conducted in late 2016 for new disposal sites within and near the Township ARRO is evaluating a parcel on South Chester Springs Road to propose how the land could be subdivided and will be preparing an estimate of disposal capacity that would be available in the subdivided areas. ARRO evaluated a parcel on South Chester Springs Road to propose how the land could be subdivided and prepared an estimate of disposal capacity that would be

available in the subdivided areas. ARRO found two potential 18-acre drip field areas on the parcel each with an average estimated capacity of 100,000 gallons per day.

ARRO prepared a draft of the Route 100 Regional WWTP aerated lagoon nutrient removal study for the potential of rerating of the lagoon to obtain an additional 100,000 gallons of capacity. The draft is under internal review prior to submission to the Authority.

ARRO continues updating the Route 100 Regional wastewater system treatment facility manual and the manuals for the other treatment facilities in the Township.

ARRO prepared the DRBC permit renewal application. ARRO submitted the DRBC permit renewal application on August 3, 2017. ARRO received a March 12, 2018 email from DRBC stating the Route 100 WWTP renewal Docket should be presented and acted upon at the next Commission hearing. ARRO received and responded to a DRBC March 30, 2018 email question. DRBC stated the draft Docket is being prepared. On May 1, 2018, ARRO received a draft of the DRBC Docket. On June 14, 2018, ARRO received the DRBC renewal Docket for the Route 100 WWTP.

ARRO is working on setting the entire Route 100 Regional WWTP disposal system into a geographical information system (GIS). ARRO has digitized the record drawings from each disposal system and has completed much of the field work gathering data from each spray and drip field and their associated pump stations. ARRO finished data collection of all Route 100 Regional WWTP disposal fields and is currently analyzing the data and integrated it into the sanitary GIS. ARRO finished integrating into sanitary GIS the data collected from all Route 100 Regional WWTP disposal fields and the Route 100 Regional WWTP.

ARRO prepared the annual Route 100 Regional WWTP groundwater monitoring report and transmitted it to PADEP by letter dated June 19, 2018. PADEP approved the June 19, 2018 annual groundwater monitoring report by letter dated August 14, 2018.

ARRO is working on an alternate energy assessment project for the Route 100 WWTP. Wind and solar energy sources are being evaluated. The final evaluation will be presented to the Board at the July 2018 meeting.

ARRO is continuing to work on digitizing features from all the satellite WWTPs.

ARRO is reevaluating Route 100 WWTP wind energy sources utilizing very small turbines.

ARRO is reevaluating the Route 100 WWTP sanitary sewer system treatment and disposal capacity summary taking into account Toll's sold capacity for Byers 5C Commercial and the treatment and disposal requirements for Byers 6C sold by Toll to Vantage Point.

Route 100 WWTP – Phase III

ARRO is reviewing the Route 100 Regional WWTP pad-mounted transformer's capacity in planning for the Phase III of the WWTP expansion. On February 12, 2018, ARRO met with a PECO representative at the WWTP to inspect the capacity of the WWTP's existing transformer and review the Phase III project. After ARRO reviewed the transformer data provided by PECO along with additional anticipated Phase III loadings ARRO concluded that the existing transformer will need to be upgraded. On May 3, 2018 ARRO completed a preliminary cost opinion for the Phase III construction.

Nothing new to report.

Saybrooke

ARRO prepared plans for a gravity and grinder pump system for 55 Yarmouth Lane and is getting a price from a contractor for the project. ARRO prepared revised plans for a gravity and grinder pump system at 55 Yarmouth Lane. Columbia Gas has approved the portion of the

plans that crosses its easement area. ARRO awaits approval of the plans by the property owners. ARRO received approval from the 55 Yarmouth Lane property owners for the proposed gravity and grinder pump system. ARRO is obtaining costs from contractors for the work. ARRO completed the 5-Year Comprehensive Groundwater Evaluation for inclusion with the WQM permit renewal application being prepared by Clean Water. ARRO is attempting to contact the 55 Yarmouth Lane property owner to determine if and when the sewer connection needs to be completed. The meeting with the 55 Yarmouth Lane property owners to determine if and when the sewer connection needs to be completed was conducted on December 8, 2016. ARRO is preparing plans and specifications for miscellaneous repairs to the Saybrooke WWTP control building. ARRO prepared specifications for repairs to the Saybrooke WWTP control building roof. A contractor quote of \$5,800.00 was received for the specified work. ARRO met with the 55 Yarmouth Lane property owners to discuss the proposed grinder pump system and also emailed to the property owners two contractor quotes for the work. ARRO is obtaining proposals for repairs to the wastewater treatment plant's Control Building roof. ARRO obtained wastewater treatment plant Control Building roof replacement proposals and submitted the costs to the Authority Administrator. The project was approved and ARRO directed the contractor to proceed. ARRO prepared the annual Saybrooke WWTP groundwater monitoring report and transmitted it to PADEP by letter dated June 19, 2018. PADEP approved the June 19, 2018 annual groundwater monitoring report by letter dated August 10, 2018. New roofing was installed on the Control Building on August 24, 2018.

ARRO is working on a plan for the decommissioning of the Saybrooke WWTP.

St. Andrews Brae

Nothing to report.

Upland Farms

ARRO has started preparing contract documents for recommended repairs to the Upland Farms effluent storage tank as contained in the August 2016 tank inspection report. ARRO conducted a site visit with Dutchland to review and discuss proposed tank repairs. ARRO is in the process of generating contract drawings and specifications for the proposed tank repairs. ARRO is completing Effluent Storage Tank Repair bid documents for bidding by the end of October 2018. ARRO completed the Effluent Storage Tank Repair bid documents. The project will be put out to bid the week of November 26, 2018.

ARRO placed the Effluent Storage Tank Repair project on PennBid on December 7, 2018. Bids are due January 10, 2019.

Waynebrook

The last house service line in the development was tested on October 20, 2015. ARRO received Waynebrook Open Space parcel legal descriptions and drip field record plans for review. ARRO reviewed three Waynebrook Open Space parcel legal descriptions and had no comments to them. ARRO reviewed the drip field record plans and transmitted comments to Cutler. Subsequently, revised drip field record plans were submitted, reviewed and approved by ARRO. ARRO requested Cutler submit Waynebrook record drawings as part of dedication. Drawings were received from Cutler, but they were not record drawings. ARRO informed Cutler again to provide record drawings. ARRO received an October 12, 2016 email from Cutler stating submission of record drawings will be in the near future and asking if all legal descriptions and easements were provided for the project. ARRO will review the email's questions and respond to Cutler. ARRO and Authority counsel have reviewed documentation prepared by Cutler for dedication of the Waynebrook sanitary sewer facilities. ARRO is preparing a letter recommending acceptance of sanitary sewer dedication. ARRO prepared a letter recommending acceptance of the sanitary sewer to be dedicated. ARRO has reminded

Cutler to submit the approved sanitary sewer and disposal fields record drawings in the forms required by the Authority's Specifications.

Nothing new to report.

Windsor Ridge

ARRO has started preparing contract documents for recommended repairs to the Windsor Ridge effluent storage tank as contained in the August 2016 tank inspection report. ARRO conducted a site visit with Dutchland to review and discuss proposed tank repairs. ARRO is in the process of generating contract drawings and specifications for the proposed tank repairs. ARRO is completing Effluent Storage Tank Repair bid documents for bidding by the end of October 2018. ARRO completed the Effluent Storage Tank Repair bid documents. The project will be put out to bid the week of November 26, 2018.

ARRO placed the Effluent Storage Tank Repair project on PennBid on December 7, 2018. Bids are due January 10, 2019.

Miscellaneous

Eagleview Wastewater Treatment Plant – Per PADEP, Upper Uwchlan Township is expected to participate in Uwchlan Township's Act 537 planning study for the Eagleview Wastewater Treatment Plant. ARRO provided a Scope of Work and Cost Estimate for the Township's participation in the Act 537 planning study to Uwchlan Township. ARRO is proceeding with the Township's portion of the Act 537 planning study. ARRO completed drafting its portion of the Act 537 Eagleview Special Study and submitted the draft to Uwchlan Township for review and comment. On May 13, 2015 ARRO conducted an audit of the existing Eagleview WWTP. ARRO evaluated the plant capacity and prepared a report of findings in June 2015. ARRO has Gannett Fleming's Act 537 Plan Revision under review with comments forthcoming in September 2016. ARRO completed its review of the Gannett Fleming Act 537 Plan Revision and sent a September 19, 2016 letter to the Township with eight comments to the Plan Revision. PADEP issued a March 17, 2017 letter requesting additional information before reviewing and acting upon the Eagleview Wastewater Treatment Plant Act 537 Plan Update Revision.

Nothing new to report.

270 – 290 Park Road (The Townes at Chester Springs) – ARRO is reviewing the sanitary sewer portion of the Final Land Development Plan resubmission for the 44 unit townhouse project. ARRO reviewed the sanitary sewer portion of the second Final Land Development Plan submission, dated December 28, 2015, and sent a comment letter to the Township dated January 26, 2016. ARRO is currently reviewing the third submission of the Plan received February 12, 2016. ARRO reviewed the third submission, dated February 12, 2016, and sent a comment letter to the Township dated February 23, 2016. A revised Sewerage Facilities Planning Module for 33 EDUs was submitted by D. L. Howell & Associates, Inc., which ARRO reviewed and the Authority Administrator signed. The signed Module was returned to D. L. Howell. ARRO reviewed another submission of the Final Land Development Plan and in a July 5, 2016 letter transmitted its comments to the Township. Sanitary sewer from the property was redesigned to connect to the new sanitary sewer in Cambridge Road in Windsor Place. ARRO reviewed another submission of the Final Land Development Plan and in a July 5, 2016 letter transmitted its comments to the Township. Sanitary sewer from the property was redesigned to connect to the new sanitary sewer in Cambridge Road in Windsor Place. ARRO transmitted review comments to the Developer's engineer regarding the planned sanitary sewer connection to the new sanitary sewer in Cambridge Road in Windsor Place. ARRO is reviewing the Sewage Facilities Planning Modules for the project. SFPM Component 4A was completed by the Township. Components 4B and 4C were completed by

Chester County and sent to the Township. Sections G1, G2 and J were completed. The Township returned all of the SFPM completed information to the Developer's Engineer to prepare the appropriate copies for submission to PADEP. Additional SFPM information was provided to PADEP in response to their April 5, 2017 requests. PADEP issued a May 10, 2017 letter approving the proposed 40 townhouses development that will generate 7,400 gallons of sewage per day to be treated at the Route 100 Regional WWTP. ARRO is reviewing the June 20, 2017 resubmission of Land Development Plans for the project. Toll Brothers will be purchasing the approved plans and will develop and build the project. ARRO reviewed and commented on the draft sanitary sewer escrow spreadsheet submitted by Toll Brothers on June 14, 2017. ARRO reviewed the June 20, 2017 resubmission of Land Development Plans for the project and sent a June 23, 2017 letter to the Township with comments. The project preconstruction meeting was held on July 27, 2017. ARRO reviewed the contractor's sanitary sewer shop drawings. Sanitary sewer installation is tentatively scheduled to start the first week of October 2017. Sanitary sewer installation started on October 9, 2017. Sanitary sewer installation was completed on November 7, 2017. All sanitary sewer testing was completed on December 18, 2017. On February 14, 2018, Toll Brothers informed ARRO that the house service line installations would begin in the later part of February 2018. House service line installations began on February 28, 2018.

House service line installations are still proceeding.

McHugh Minor Subdivision Plan – ARRO reviewed a proposed 3-lot subdivision plan with individual on-lot disposal systems. ARRO prepared a September 6, 2016 review comments letter and transmitted it to the Township. ARRO reviewed the subdivision Sewage Facilities Planning Modules (SFPM) and the Township sent them on to Chester County for completion of Components 4B and 4C. The Township provided the completed Components 4A, 4B and 4C to the applicant's consultant to assemble the complete SFPMs for the Board of Supervisors to adopt a Resolution for submission to PADEP. PADEP issued a July 7, 2017 Administrative Incompleteness review letter for the subdivision plan listing two items. ARRO is assisting the Developer with a response to the PADEP comment. ARRO sent a September 19, 2017 email to PADEP with responses to PADEP's recent Administrative Incompleteness letter. Regarding the SFPM, an Authority letter, dated October 11, 2017, was sent to PADEP informing them that the Township is not involved in the ownership of private on-lot septic system. ARRO responded to a subsequent email from PADEP on October 30, 2017 with a draft Septage Management Ordinance that is currently under Township review. ARRO is endeavoring to obtain a status from PADEP to its last correspondence to PADEP. ARRO contacted PADEP and the Department wants either an executed O&M agreement with the property owner and Township OR a Township enacted Septage Management Ordinance. The SFPM will not be acted on until one or the other is submitted to the Department.

Nothing new to report.

Marsh Lea Subdivision – ARRO reviewed a proposed 27-lot subdivision plan with individual on-lot disposal systems. ARRO prepared a September 13, 2016 review comments letter and transmitted it to the Township. ARRO reviewed the Sewage Facilities Planning Modules and they were sent to Chester County by the Township. Component 4 B was completed by the Planning Commission, but Component 4C hasn't been returned. SFPM Component 4A was completed by the Township. Component 4B was completed by Chester County Planning Commission and Component 4C was completed by Chester County Health Board and both components were sent to the Township. The Township returned all of the SFPM completed information to the Developer's Engineer to prepare the appropriate copies for submission to PADEP. ARRO transmitted comments to the Township regarding the developer's March 8, 2017 Marsh Lea Subdivision Plans. PADEP sent an Administrative Incompleteness Review Letter, dated August 9, 2017 to the Township. ARRO is assisting with responses to the

PADEP letter. Evans Mill on its own transmitted a September 5, 2017 letter to PADEP with responses to PADEP's August 9, 2017 Administrative Incompleteness review letter. After review of the September 5, 2017 letter, PADEP sent a September 28, 2017 email to Evans Mill and the Township requesting additional information for the SFPM. Evans Mill transmitted a September 29, 2017 response email back to PADEP. PADEP issued a November 17, 2017 letter approving the 27-lot residential subdivision SFPM. Evans Mill provided a response to PADEP regarding the SFPM in early October 2018. PADEP issued its SFPM approval letter, dated October 31, 2018, for the 27-lot residential subdivision.

Nothing to report.

Village of Eagle

Gordon's Sports Supply - Gordon's Sports Supply expressed an interest in connecting to the Route 100 Regional WWTP sewage collection system. ARRO reviewed one year of water usage records supplied by Gordon's for analysis to estimate sewage flow and to establish a connection fee. On September 8 and September 19, 2017, ARRO sent to the Gordon's building owner the Authority's sanitary sewer requirements and a drawing of the Little Conestoga Road sanitary sewer to which the building will be connected.

Nothing new to report.

160/180 Park Road (Gunner Properties) - ARRO reviewed and commented on the sanitary sewer plans submitted to the Township on June 14, 2017 for the connection of 160/180 Park Road to the Route 100 Regional WWTP sanitary sewer system. ARRO reviewed revised sanitary sewer plans submitted to the Township on August 3, 2017. ARRO sent a letter to the Authority approving the revised plans. ARRO received updated Preliminary/Final Land Development Plans on October 17, 2017 for review. ARRO issued an October 31, 2017 comments letter to the updated Preliminary/Final Land Development Plans, received on October 17, 2017, requesting additional information on proposed bathroom facilities to determine the sanitary sewer capacity that will need to be purchased. ARRO reviewed a request to allow installation of an 8" saddle on the existing 12" sewer main in lieu of 8" x 12" cut-in wye as shown on the Developer's approved design drawings. The request was denied unless further information is supplied supporting the request's feasibility. ARRO reviewed and accepted installation of an 8" saddle on the existing 12" sewer main in lieu of 8" x 12" cut-in wye. A preconstruction meeting for the project was held on January 11, 2018. On February 20, 2018, the Developer's contractor installed an 8" saddle on the existing 12" sewer main in Park Road. The contractor also started installing sewer within the site. ARRO is preparing a letter to the Authority in response to the capacity request from the Developer

Nothing new to report.

Montesano Brothers Italian Market and Catering - ARRO reviewed a Conditional Use application for expansion of the Market to provide outdoor seating. ARRO sent an October 10, 2017 review letter to the Township with comments that included a review of current sewage flows and an estimate of two (2) EDUs in additional sanitary sewer flow would be generated with the expansion. ARRO attended an October 16, 2017 Conditional Use Hearing on the application. ARRO will be attending the continued Conditional Use Hearing scheduled for December 18, 2017.

Nothing new to report.

Byers Road Sanitary Sewer Extension - ARRO preliminary planning for sanitary sewer along Byers Road between Pottstown Pike and Senn Drive was submitted to the Authority Administrator for review and comment. ARRO is preparing the Sewage Facilities Planning Module Component 3M for the sanitary sewer along Byers Road between Pottstown Pike and

Senn Drive. ARRO received a completed Component 4A from the Township on October 19, 2017. At the request of the Chester County Health Department, on January 9, 2018, ARRO sent another Sewage Facilities Planning Module Component 3M letter to CCHD for the sanitary sewer extension along Byers Road between Pottstown Pike and Senn Drive. In February 2018 letters were sent to the property owners who will be connected to the new Byers Road sanitary sewer informing them that the project's survey will be commencing. ARRO is continuing to prepare drawings and construction specifications for the sanitary sewer extension. The project's survey work was completed in early March 2018. ARRO has the survey information for inclusion in the plans. ARRO has the design plans and specifications in the final stage of completion. ARRO submitted the highway occupancy permit to PennDOT on April 16, 2018. There were no public comments to the sewage facilities planning module (SFPM) and the Board of Supervisors passed a resolution approving the submission of the SFPM to PADEP. ARRO submitted the Sewage Facilities Planning Module to PADEP on April 27, 2018. Comments from PADEP are expected within sixty (60) days. PennDOT has approved the highway occupancy permit plans and requires payment of \$810 for inspection observation prior to release of the permit. PADEP transmitted its comments to the Sewage Facilities Planning Module by letter dated June 21, 2018. ARRO is in the process of addressing each of the PADEP comments. The PennDOT Highway Occupancy Permit for the project has been received. ARRO submitted an August 6, 2018 letter to PADEP addressing each PADEP comment from its Sewage Facilities Planning Module review letter, dated June 21, 2018. PADEP transmitted a September 5, 2018 letter with additional comments to Sewage Facilities Planning Module. ARRO submitted a response letter addressing each concern on October 17, 2018.

PADEP transmitted a November 14, 2018 letter with additional comments to the Sewage Facilities Planning Module. ARRO is reviewing the letter and will address each comment in a future letter.

Profound Technologies (125 Little Conestoga Road) - On November 12, 2018 Profound Technologies submitted a building expansion land development plan. Profound Technologies already paid a Capacity Fee for 222 gallons per day (gpd) for its original building. The expansion project SFPM mailer shows an increase in the sewage flows to 350 gpd.

ARRO is reviewing the building expansion land development plan and the proposed sewage flows to be generated from the expansion.

Township Wastewater Treatment Plant's Monthly Average Flow Charts – Please see the attached.

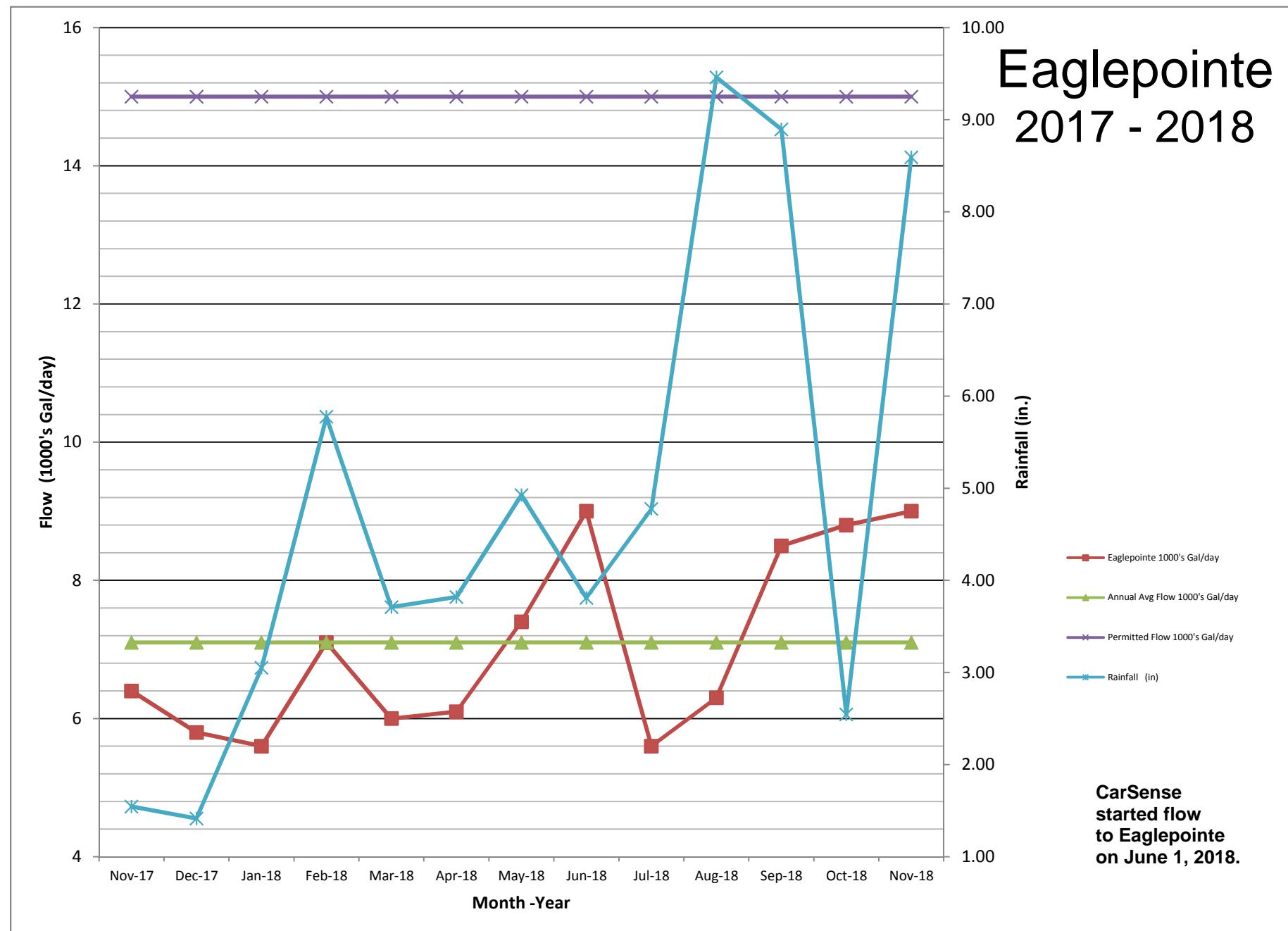
UPPER UWCHLAN MUNICIPAL AUTHORITY
WASTEWATER TREATMENT PLANTS

MONTHLY AVERAGE DAILY FLOWS

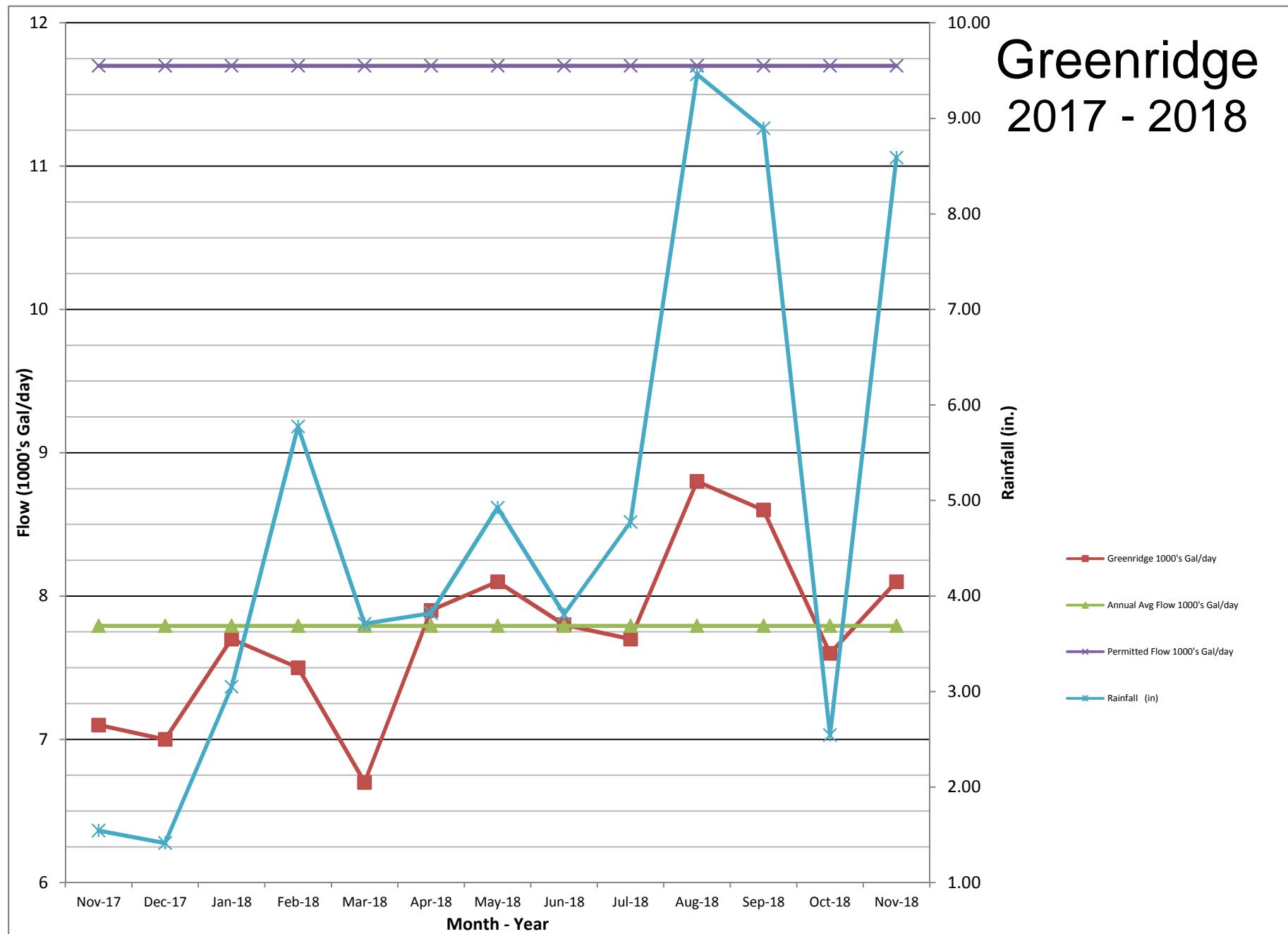
Month - Year		Average Daily Flow (MGD)							Rainfall (in)
		Eaglepointe	Greenridge	Lakeridge	Marsh Harbour	Route 100	Saybrooke	St. Andrews	
Nov-17		0.00640	0.00710	0.02760	0.03920	0.30900	0.00720	0.00180	1.55
Dec-17		0.00580	0.00700	0.02790	0.03930	0.31070	0.00720	0.00210	1.42
Jan-18		0.00560	0.00770	0.02770	0.03920	0.30760	0.00770	0.00200	3.05
Feb-18		0.00710	0.00750	0.02900	0.04240	0.33180	0.00820	0.00260	5.78
Mar-18		0.00600	0.00670	0.02850	0.04200	0.33400	0.00770	0.00250	3.71
Apr-18		0.00610	0.00790	0.02560	0.04010	0.32180	0.00750	0.00270	3.82
May-18		0.00740	0.00810	0.02650	0.04020	0.33400	0.00750	0.00250	4.93
Jun-18		0.00900	0.00780	0.02500	0.03660	0.31510	0.00730	0.00220	3.81
Jul-18		0.00560	0.00770	0.02380	0.03590	0.30630	0.00790	0.00240	4.78
Aug-18		0.00630	0.00880	0.02470	0.04060	0.32210	0.00670	0.00240	9.46
Sep-18		0.00850	0.00860	0.02570	0.04090	0.34200	0.00790	0.00260	8.90
Oct-18		0.00880	0.00760	0.02420	0.03920	0.32610	0.00790	0.00260	2.55
Nov-18		0.00900	0.00810	0.02980	0.04730	0.34890	0.00790	0.00260	8.59
Annual Avg Flow =		0.00710	0.00779	0.02653	0.04031	0.32503	0.00762	0.00243	
Permitted Flow =		0.01500	0.01170	0.04000	0.07600	0.60000	0.00920	0.00360	
Permitted Flow as of October 2015 =							0.60000		

Eaglepointe

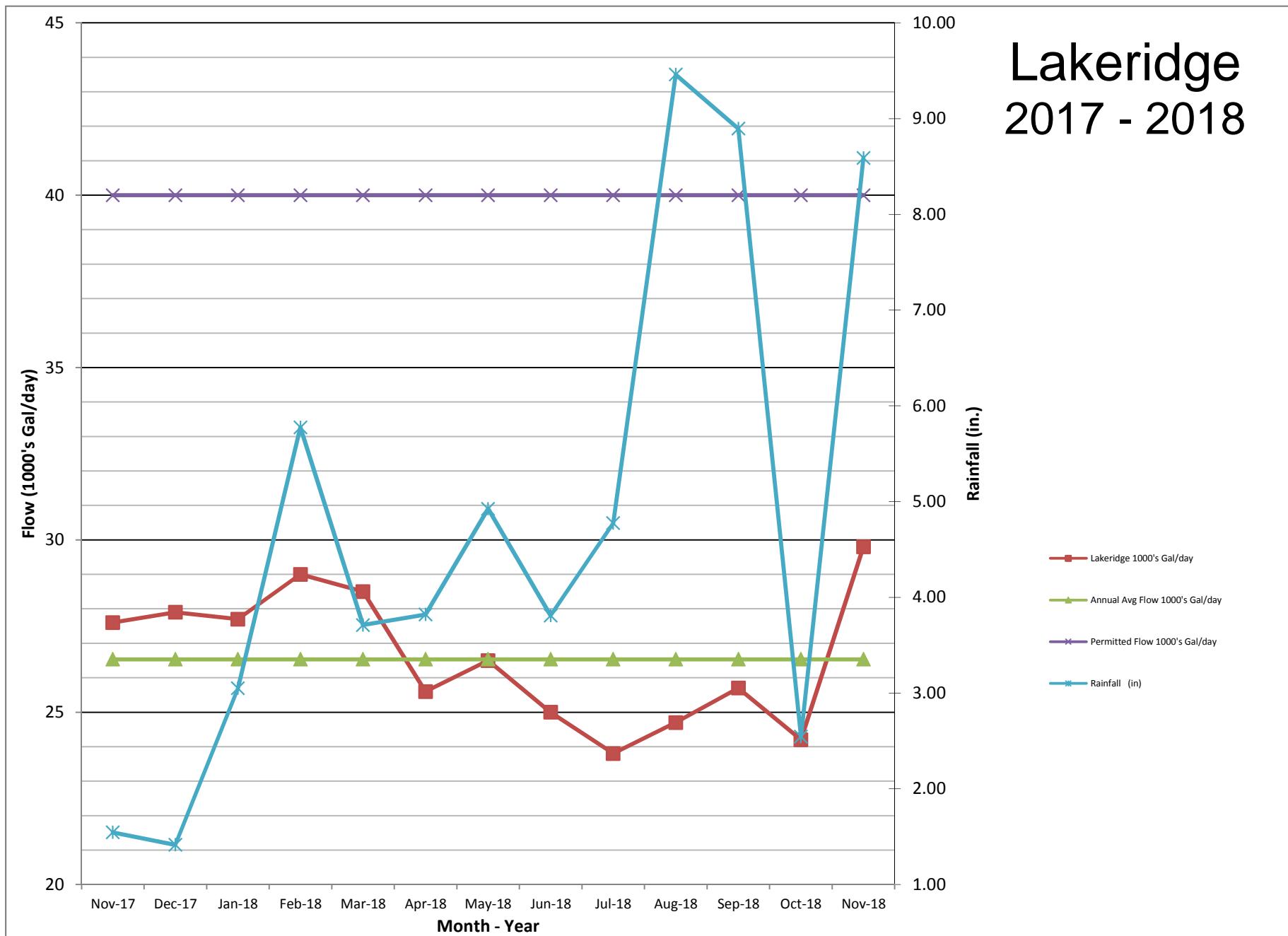
2017 - 2018



Greenridge 2017 - 2018

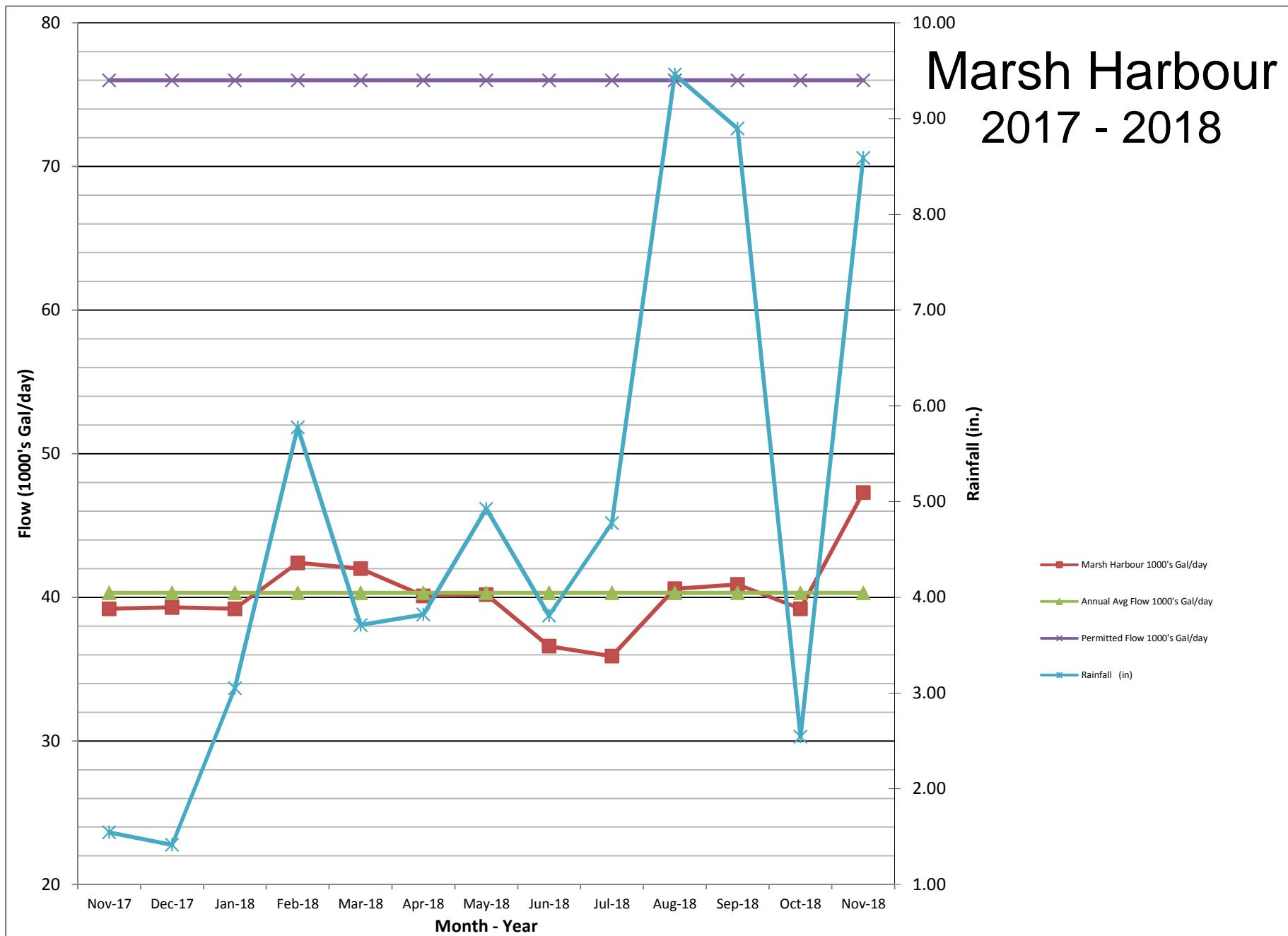


Lakeridge 2017 - 2018

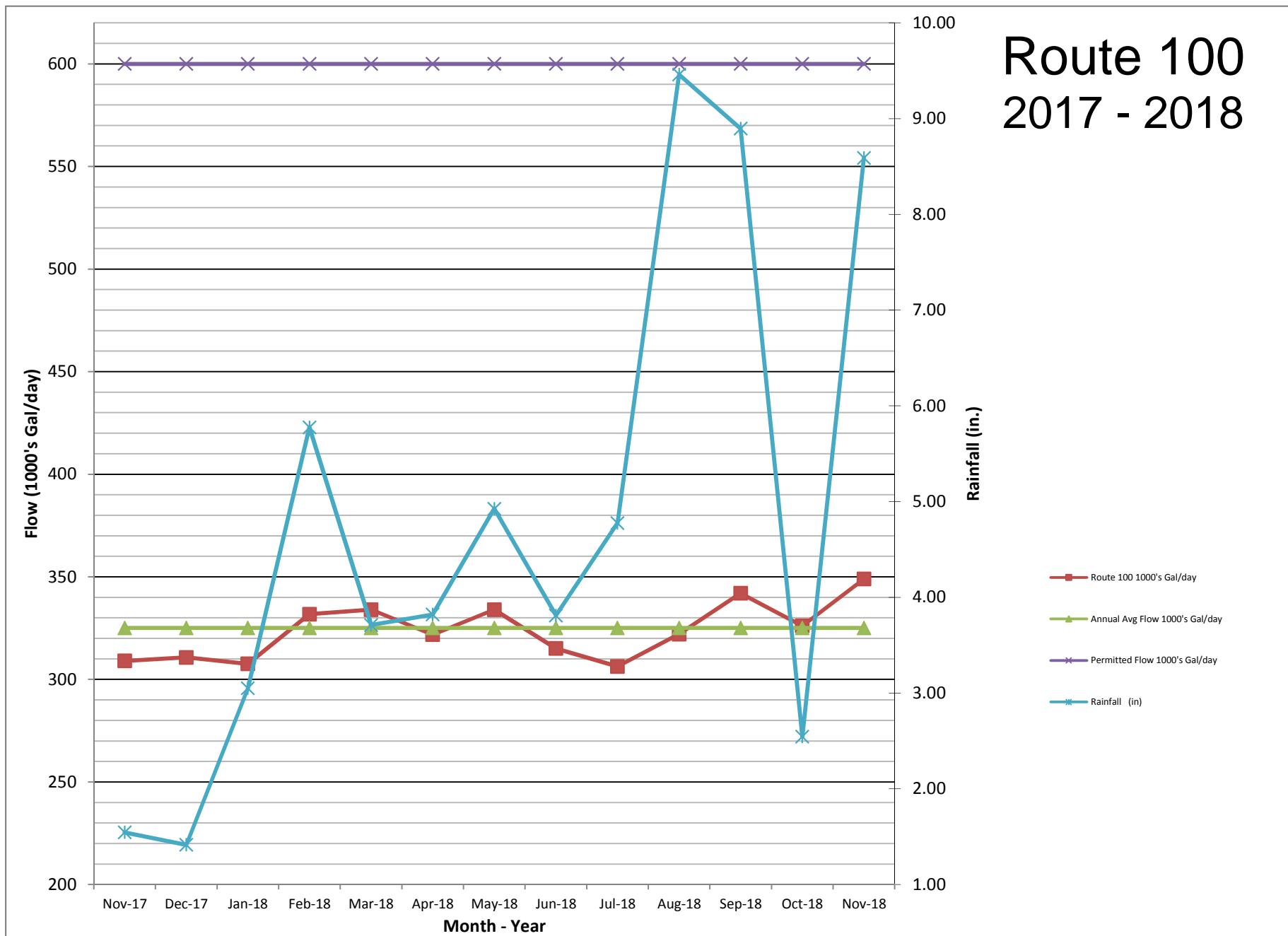


Marsh Harbour

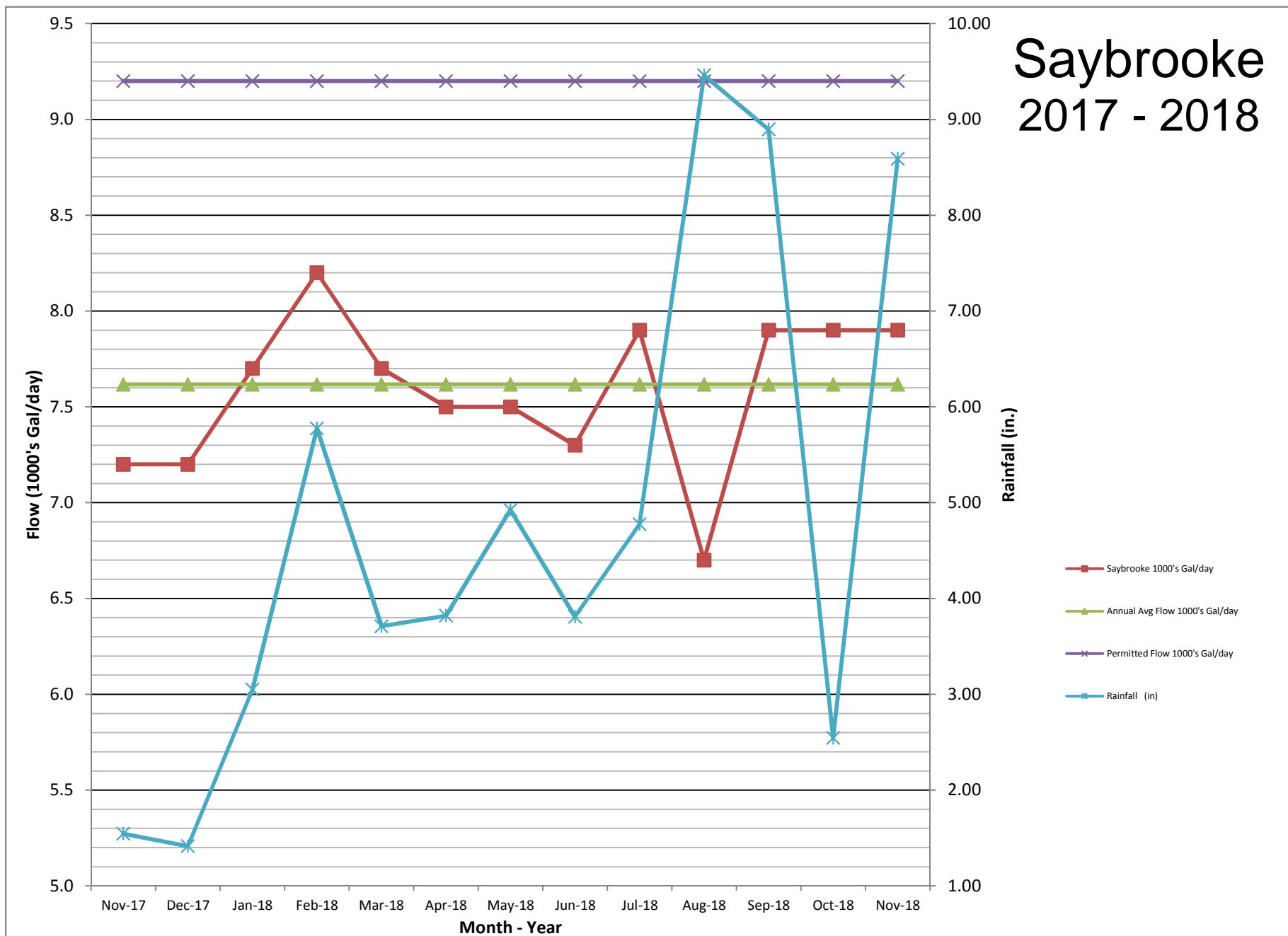
2017 - 2018



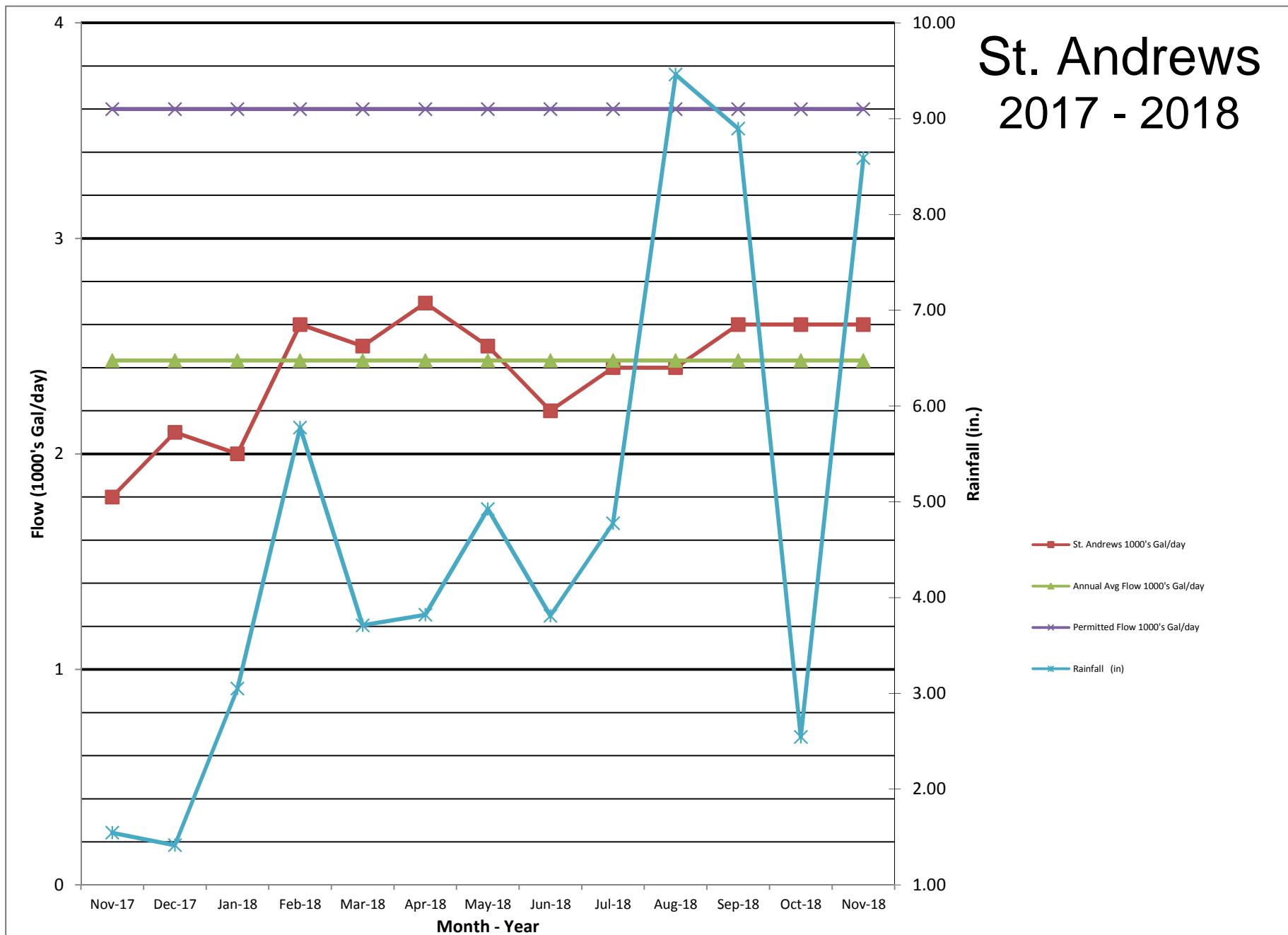
Route 100 2017 - 2018



Saybrooke 2017 - 2018



St. Andrews 2017 - 2018





To: Municipal Authority Members
From: G. Matthew Brown, P.E., DEE
Re: Authority Administrator's Report
Date: December 13, 2018

Activities for the month include:

- A. Communication with WWTF Operator and Township Staff regarding operational and maintenance issues.
- B. Responded to resident, developer and real estate agent sewer service inquiries and septic tank issues.
- C. Preparation of administrative documents for the Authority meeting packet and for the Authority files.
- D. Communication with PADEP and developer regarding Phase III of the Route 100 WWTF.
- E. Communication with Township and Solicitors regarding revisions to the Intermunicipal Agreement and dedication of the Ewing West Vincent Project.
- F. Communication with the Contractor and ARRO regarding the disposal field fencing project.
- G. Communication with ARRO and contractors regarding the Lakeridge Sludge Holding Tank Project.
- H. Communication with Township, Bond Underwriter and Bond Counsel regarding borrowing for the Phase III project.
- I. Preparation of Draft 2019 Operating and Capital Budgets.

Please advise if you have any questions or would like further details.



NOVEMBER / DECEMBER 2018 REPORT UUT MUNICIPAL AUTHORITY PUBLIC WORKS DEPARTMENT

The following projects are underway:

Ongoing:

- Snow removal was done at all facilities on November 15th.
- All fencing is complete
- Locks were spot checked at all pump stations. All have been secure except for an employee of Clean Water left Lakeridge door open last weekend. The fence was locked.
- Spot checks continue and all visitors are still using the sign-in sheets at all properties.

Brian Owens continues on the properties as follows:

Complete:

- Rte. 100 WWTP
 1. General cleaning of station and office
 2. Roof of Building 2C still needs a roofing contractor to inspect and make some repairs (We will get a quote)
 3. Water infiltration from groundwater in Building 2A has been plugged and is being monitored. A small amount of water is present. We will continue to watch this area.
 4. Painting continues
- Byers Station Effluent PS
 1. General cleaning of station
- Byers Station Influent PS
 1. General cleaning of station
- Ewing PS
 1. General cleaning of station
- Ewing West Vincent PS
 1. General cleaning of station
- Ewing Tract Effluent Disposal System
 1. No work orders for this location

- **Eagle Hunt**
 - 1. Cleaning of this location
- **Windsor Ridge**
 - 1. General cleaning
- **Saybrooke WWTP**
 - 1. General cleaning of station
 - 2. Rehabilitation still under way at this station.
 - 3. Floors have been sealed in motor room and painting has begun
- **Seabury**
 - 1. There are currently no work orders for this facility.
- **Yarmouth PS1**
 - 1. There are currently no work orders for this facility.
- **Yarmouth PS2**
 - 1. There are currently no work orders for this facility.
- **St Andrews Brae**
 - 1. General cleaning of station
- **St Andrews Brae PS (at St Andrews intersection)**
 - 1. There are currently no work orders for this facility.
- **Reserve Lagoon**
 - 1. General cleaning of station
- **Reserve at Eagle PS1**
 - 1. Trash removal and general cleaning
- **Reserve at Eagle PS 2**
 - 1. General cleaning of station
- **Upland Farms PS/ Reserve at Waynebrook**
 - 1. There are currently no work orders for this facility.
- **Greenridge**
 - 1. Completed cleanup
 - 2. Repaired gate
- **Stonehedge**
 - 1. General cleaning of station
- **Marsh Harbour WWTP**
 - 1. General cleaning and trash removal
 - 2. Interior rehab is complete - waiting on contractor for exterior

- **Marsh Harbour PS**
 - 1. There are currently no work orders for this facility.
- **Meadowcreek**
 - 1. There are currently no work orders for this facility.
- **Eaglepointe**
 - 1. Trash collection and cleaning
- **Heron Hill PS**
 - 1. There are currently no work orders for this facility.
- **Lakeridge WWTP**
 - 1. General cleaning and trash removal
 - 2. Confined space floor and wall area has been sealed where excess water was coming from outside onto station floor
 - 3. Parkson tank and piping continue to be sanded and painted
- **Lakeridge Pump Station**
 - 1. The station has been cleaned and painted.
 - 2. Floors are sealed
- **Eagle Farms Rd PS (WV)**
 - 1. General cleaning of station
- **Little Conestoga Rd PS**
 - 1. There are currently no work orders for this facility.
- **Eagle Manor PS (Dorothy Ln)**
 - 1. There are currently no work orders for this facility.
- **Garrison Dr. (spray field pump station #1)**
 - 1. There are currently no work orders for this facility.
- **Garrison Dr. (spray field pump station #2)**
 - 1. There are currently no work orders for this facility.

- **Public Works continues to respond to Pa 1-calls. UUT responded to 57 PA 1-Call tickets during the month of November.**

Respectfully submitted,
Michael G. Heckman
Director of Public Works
Upper Uwchlan Township